AX-E95TN

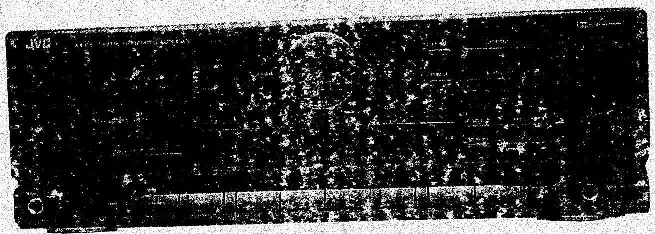
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

DX-E95TN

(UNIT No. AX-E95TN)



* For instruction manual, please refer to the DX-E95TN (SM. No. 20277).

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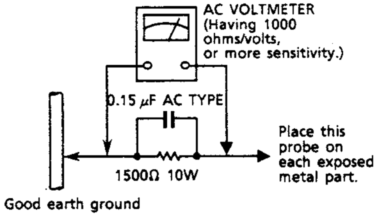
No. 20279
Sept. 1991

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, contorl shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10 W resistor paralleled by a 0.15 µF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor.
     Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).


AC VOLTMETER
(Having 1000 ohms/volts, or more sensitivity.)
0.15 µF AC TYPE
1500Ω 10W
Place this probe on each exposed metal part.
Good earth ground

Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Technical Explanation

■ Air-cooling Fan

1. Outline

In the AX-E95TN, the adoption of a motor-driven air cooling fan enables a miniaturized compact/high power as well as a compact heat sink. This cooling fan rotates at the speed of two stages depending on the music signal level and heat sink temperature.

2 Fan operation

① When the speaker output continues for 1 minute 50 seconds at more than 8V, or if the thermistor temperature continues for 1 minute 50 seconds at 85 or higher degrees centigrade, the fan rotates at a low speed.

② When the speaker output continues for 1 minute at more than 22V, or if the thermistor temperature continues for 1 minute at 95 or higher degrees centigrade.

③ If the signal detection is turned off in rotation, then the air cooling fan stops 1 minute later.

④ If the heat sink operation continues for 1 minutes at the temperature of 120 or higher degrees, then the speaker relay is turned off.

3 Detection circuit

○ Detection of music peak

To detect a music peak, a signal from the main speaker signal line is detected and input to the 10 pin of A/D converter (IC952).

- If the speaker output is of 8V, then the 10 pin of IC952 is at 0.25V.
- If the speaker output is of 22V, then the 10 pin of IC952 is at 0.75V.

○ Detection of thermistor temperature

A differential amplifier consisting of Q504,Q505 and SR500 is available for the thermistor-operated temperature detection circuit. As a resistance value changes with the thermistor temperature fulfunction, voltage applied to the 10 pin of A/D convertor(IC952) also change to activate the air cooling fan.

- Under a thermistor temperature of 85 degrees, the 10 pin of IC952 is at 0.25V.
- Under a thermistor temperature of 95 degrees, the 10 pin of IC952 is at 0.75V.

As described above, at a voltage applied to the 10 pin of IC952, the data is converted into serial data, output from the 5 pin, and then output to the system controller (IC900).

This data results in an output of "H" from the 15 pin or 16 pin of IC650 which controls the low/high the Q017 and Q022, and controls the fan motor.

Disassembly Procedures

■ Removing the Top Cover

1. Remove the screws on each side and the 4 screws on the rear side.
2. Pull the top cover slightly backward and lift it while spreading the backs of the left and right sides to remove it.

■ Removing the Front Panel Assembly

1. Remove the 5 black colored screws Ⓐ fixing bottom of the front panel.
2. Remove the connectors connected to the front panel.

■ Removing the Front Panel

1. Remove the front panel assembly.
2. Remove each volume knob.
3. Remove the 2 screws Ⓑ fixing the front base and the front panel.
4. Remove the 4 hooks Ⓒ fixing front panel, then remove the front panel.

■ Removing the Heat Sink Assembly

1. Remove the screw Ⓓ fixing the rear panel.
2. Remove the 2 screws Ⓔ fixing the heat sink assembly.
3. Remove the connector. (J500,J501,502,503)

Notice

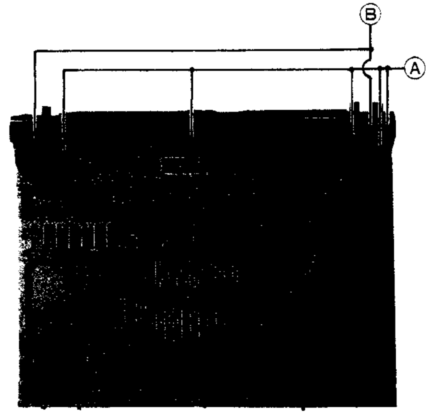
Take care the remove of the connectors to prevent damage of main P.C.Board because they are installed directly between the main and the power amplifier P.C.Board.

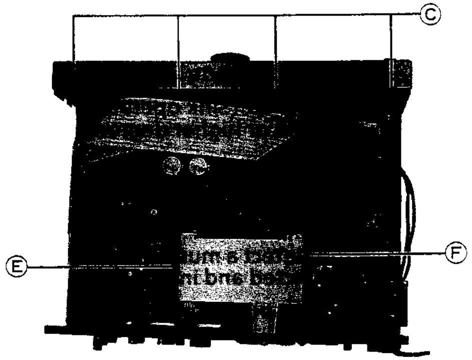
■ Removing the Main P.C.Board

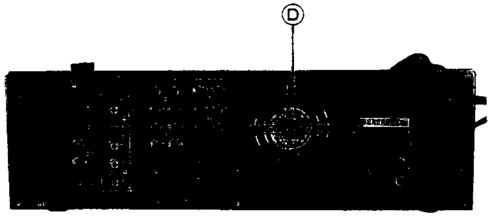
1. Remove the P.C.Board(ENH-183-4).
2. Remove the heat sink assembly.
3. Remove the 6 screws fixing the main P.C.Board(ENH-183-1).

■ Removing the Balance and the Rear volume

1. Remove the front panel and the ornament.
2. Remove the nat fixing a shaft of main volume to front panel.
3. Remove the screws fixing the balance and the rear volume P.C.Board.



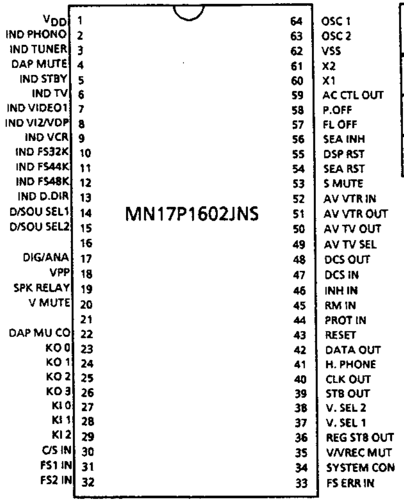




Description of Major LSIs

■ MN17P1602JNS (IC930) : System Controller

1. Terminal Layout


MN17P1602JNS
V_DD 1
IND PHONO 2
IND TUNER 3
DAP MUTE 4
IND STBY 5
IND TV 6
IND VIDEO1 7
IND VI2/VDP 8
IND VCR 9
IND FS32K 10
IND FS44K 11
IND FS48K 12
IND D.DIR 13
D/SOU SEL1 14
D/SOU SEL2 15
16
DIG/ANA 17
VPP 18
SPK RELAY 19
V MUTE 20
21
DAP MU CO 22
KO 0 23
KO 1 24
KO 2 25
KO 3 26
KI 0 27
KI 1 28
KI 2 29
C/S IN 30
FS1 IN 31
FS2 IN 32
64 OSC 1
63 OSC 2
62 VSS
61 X2
60 X1
59 AC CTL OUT
58 P.OFF
57 FL OFF
56 SEA INH
55 DSP RST
54 SEA RST
53 S MUTE
52 AV VTR IN
51 AV VTR OUT
50 AV TV OUT
49 AV TV SEL
48 DCS OUT
47 DCS IN
46 INH IN
45 RM IN
44 PROT IN
43 RESET
42 DATA OUT
41 H. PHONE
40 CLK OUT
39 STB OUT
38 V. SEL 2
37 V. SEL 1
36 REG STB OUT
35 V/VREC MUT
34 SYSTEM CON
33 FS ERR IN

2. Key matrix

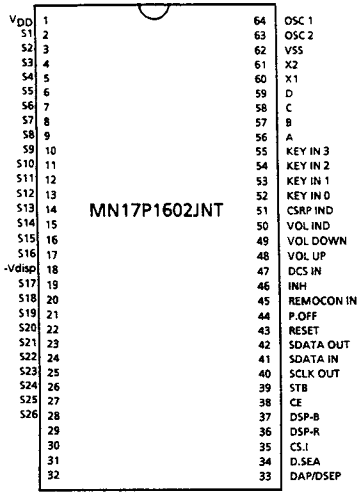
	KO-0	KO-1	KO-2	KO-3
KI-0	POWER	DAT	VIDEO 2 / VDP	TAPE
KI-1	D.DIRECT	TV	VCR	PHONO
KI-2	CD	VIDEO 1	DIGITAL	TUNER

3. Pin Functions

NO.	symbol	I/O	Functions	NO.	symbol	I/O	Functions
1	VDD	-	Power supply (+5V)	33	FS ERR IN	I	FS ERR control input
2	IND PHONO	O	Indicator control signal output	34	SYSTEM CON	I	Power on / off control
3	IND TUNER	O	〃	35	VTR/VREC MUT	O	Rec mute signal output
4	DAP MUTE IN	O	〃	36	REG.STB OUT	O	
5	IND STANDBY	O	〃	37	VIDEO SEL1	O	Video output control
6	IND TV	O	〃	38	VIDEO SEL2	O	〃
7	IND VIDEO1	O	〃	39	STB. OUT	O	Strobe signal output to IC302,303
8	IND VID2/VDP	O	〃	40	CLK OUT	O	Serial clock output to IC302,303
9	IND VCR	O	〃	41	H.PHONE IN	O	Head phone muting signal output
10	IND FS32K	O	〃	42	DATA OUT	O	Serial data output to IC302,303
11	IND FS44K	O	〃	43	RESET IN	I	Reset signal input
12	IND FS48K	O	〃	44	PROTECTOR IN	I	Protection detect signal input
13	IND D.DIRECT	O	〃	45	RM CON IN	I	Remote control signal input
14	DSOURCE SEL1	O	Digital source selector control	46	INH IN	I	Inhibit signal input
15	DSOURCE SEL2	O	Digital source selector control	47	DCS IN	I	Compu-link signal output
16	NONE	O	Non connection	48	DCS OUT	I	Compu-link signal input
17	DIG/ANA	O	Control of IC401	49	AV.TV SEL	O	Control the remote signal to TV
18	VPP	-	Connect to ground	50	AV.TV OUT	O	AV Compulink signal output for TV
19	SPK RLY	O	Speaker relay control signal output	51	AV.VTR OUT	O	AV Compu-link signal output for VTR
20	V.MUTE	O	Video muting control	52	AV.VTR IN	I	AV Compu-link signal input for VTR
21	RM IND	O	Indicator control signal output	53	S.MUTE	O	Muting signal output
22	DAP MUTE CON	O	DAP out muting control	54	SEA RESET	O	Reset signal output
23	KO 0	O	Key matrix output	55	DSP RESET	O	Reset signal output to IC650
24	KO 1	O	〃	56	SEA INH	O	Inhibit signal output
25	KO 2	O	〃	57	FL OFF OUT	O	FL indication control output
26	KO 3	O	〃	58	DECK POWER	O	Power off signal output
27	KI 0	I	Key matrix input	59	AC CTL OUT	O	Power supply control output
28	KI 1	I	〃	60	X1	–	Connect to ground
29	KI 2	I	〃	61	X2	–	Non connection
30	C/S IN	I		62	VSS	–	Connect to ground
31	FS1 IN	-	FS1 indicator control input	63	OSC2	O	Output of Xtal oscillation circuit
32	FS2 IN	-	FS2 indicator control input	64	OSC1	I	Input to Xtal oscillation circuit

■ MN17P1602JNT (IC900) : FL & System controller

1. Terminal Layout


MN17P1602JNT
VDD 1
S1 2
S2 3
S3 4
S4 5
S5 6
S6 7
S7 8
S8 9
S9 10
S10 11
S11 12
S12 13
S13 14
S14 15
S15 16
S16 17
-Vdisp 18
S17 19
S18 20
S19 21
S20 22
S21 23
S22 24
S23 25
S24 26
S25 27
S26 28
29
30
31
32
64 OSC 1
63 OSC 2
62 VSS
61 X2
60 X1
59 D
58 C
57 B
56 A
55 KEY IN 3
54 KEY IN 2
53 KEY IN 1
52 KEY IN 0
51 CSRP IND
50 VOL IND
49 VOL DOWN
48 VOL UP
47 DCS IN
46 INH
45 REMOCON IN
44 P.OFF
43 RESET
42 SDATA OUT
41 SDATA IN
40 SCLK OUT
39 STB
38 CE
37 DSP-B
36 DSP-R
35 CS.I
34 D.SEA
33 DAP/DSEP

2. Key matrix

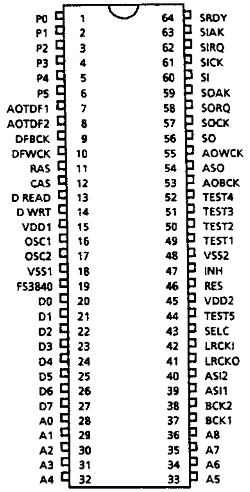
	Y0	Y1	Y2	Y3
KI-0	DISPLAY	SEA ON/OFF	MEMORY	LEVEL -
KI-1	DEMO	PRESET	FREQ SELECT	LEVEL +
KI-2	L.CSRP	DAP ON/OFF	DAP -	f ▶
KI-3		MODE	DAP +	f ◀

3. Pin Functions

NO.	symbol	I/O	Functions	NO.	symbol	I/O	Functions
1	VDD	-	Power supply (+ 5V)	33	SH3	I	DAP / DSEP indicator signal output
2	S1	O	FL segment control output	34	SH4	I	D.sea indicator signal output
3	S2	O	〃	35	CS.I	O	Connect to ground
4	S3	O	〃	36	DSP-R	O	DSP-REQ signal output to IC650
5	S4	O	〃	37	DSP-B	O	DSP-BUSY signal output to IC650
6	S5	O	〃	38	CE	O	Chip enable signal output to IC952
7	S6	O	〃	39	STB	O	Strobe signal output to IC951
8	S7	O	〃	40	SCLK OUT	O	Serial clock output to IC951,952,650
9	S8	O	〃	41	SDATA IN	O	Serial data input from IC951,952
10	S9	O	〃	42	SDATA OUT	O	Serial data output to IC951,952,650
11	S10	O	〃	43	RESET	I	Reset signal input
12	S11	O	〃	44	P.OFF	I	Power off signal input from IC930
13	S12	O	〃	45	REMOCON IN	I	Remote control signal input
14	S13	O	〃	46	INH	I	Inhibit signal input
15	S14	O	〃	47	DCS IN	I	Compulink signal input
16	S15	O	〃	48	VOL.UP	I	Volume control signal output
17	S16	O	〃	49	VOL.DOWN	O	〃
18	-Vdisp	-	Power supply for FL display	50	VOL.IND	O	Volume indicator control output
19	S17	O	FL segment control output	51	L . CSRP	O	Learning CSRP indicator control output
20	S18	O	〃	52	KEY IN0	I	Key matrix input
21	S19	O	〃	53	KEY IN1	O	〃
22	S20	O	〃	54	KEY IN2	O	〃
23	S21	O	〃	55	KEY IN3	O	〃
24	S22	O	〃	56	A	O	FL grid control output
25	S23	O	〃	57	B	O	〃
26	S24	O	〃	58	C	O	〃
27	S25	I	〃	59	D	O	〃
28	S26	I	〃	60	X1	–	Connect to ground
29	J1	I	JOG/SHUTTLE signal input	61	X2	–	Non connection
30	J2	I	〃	62	Vss	–	Connect to ground
31	SH1	I	〃	63	OSC 2	O	Output of Xtaloscillation circuit
32	SH2	I	〃	64	OSC 1	I	Input to Xtal oscillation circuit

■ LC83010N (IC651) : DSP (Digital Signal Processor)

1. Terminal layout

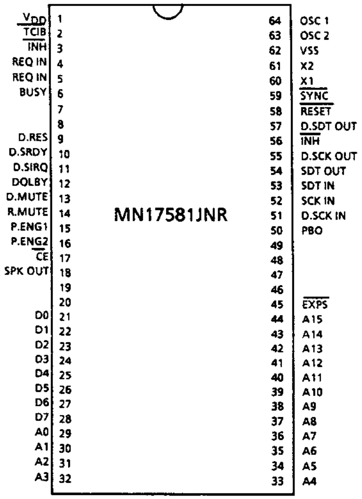

P0 1
P1 2
P2 3
P3 4
P4 5
P5 6
AOTDF1 7
AOTDF2 8
DFBCK 9
DFWCK 10
RAS 11
CAS 12
D READ 13
D WRT 14
VDD1 15
OSC1 16
OSC2 17
VSS1 18
FS3840 19
D0 20
D1 21
D2 22
D3 23
D4 24
D5 25
D6 26
D7 27
A0 28
A1 29
A2 30
A3 31
A4 32
64 SRDY
63 SIAK
62 SIRQ
61 SICK
60 SI
59 SOAK
58 SORQ
57 SOCK
56 SO
55 AOWCK
54 ASO
53 AOBCK
52 TEST4
51 TEST3
50 TEST2
49 TEST1
48 VSS2
47 INH
46 RES
45 VDD2
44 TEST5
43 SELC
42 LRCKI
41 LRCKO
40 ASI2
39 ASI1
38 BCK2
37 BCK1
36 A8
35 A7
34 A6
33 A5

2. Pin functions

Pin No.	Symbol	I/O	Functions
1~6	P0~P5	I/O	Not used
7,8	AOTDF1 / AOTDF2	O	Audio serial data output.
9	DFBCK	O	Bit clock for AOTDF1 / AOTDF2 output.
10	DFWCK	O	Not used
11	RAS	O	ROW ADDRESS STROBE : Signal output when accessing external D-RAM.
12	CAS	O	COLUMN ADDRESS STROBE : Signal output when accessing external D-RAM.
13	D READ	O	Data read signal output when accessing external D-RAM.
14	D WRT	O	Data write signal output when accessing external D-RAM.
15,45	VDD	—	Power supply (+ 5V)
16	OSC1	I	External clock input. (384fs)
17	OSC2	O	Not used
18,48	VSS	—	Ground
19	FS384O	O	384fs output
20~27	DO~D7	I/O	Data input / output between external D-RAM and these pins.
28~36	A0~A8	O	Address output for external D-RAM.
37	BCK1	I	Bit clock for ASI 1 input.
38	BCK2	I/O	Bit clock for ASI 2 input.
39	ASI 1	I	Audio data serial input
40	ASI 2	I	Audio data serial input
41	LRCKO	O	L/R channel selectable signal output.(L:R-ch , H:L-ch)
42	LRCKI	I	L/R channel selectable signal input.(L:R-ch , H:L-ch)
43	SELC	I	Oscillator selectable signal input. (L:external , H:internal)
44	TEST 5	O	Output for TEST.
46	RES	I	Reset input
47	INH	I	Inhibit signal input.
49~52	TEST1~TEST4	I	Input for test. Connect to ground.
53	AOBCK	O	Bit clock for ASO output
54	ASO	O	Audio data serial output
55	AOWCK	O	Not used
56	SO	O	Not used
57	SOCK	I	Not used
58	SORQ	I	Request signal input for serial output
59	SOAK	O	Not used
60	SI	I	Serial data input from control micro computer.
61	SICK	I	Serial clock input for SI input.
62	SIRQ	I	Request signal input for serial input.
63	SIAK	O	Signal output which indicates that the serial input is on the execution.
64	SRDY	I	Ready signal input which indicates that the serial data input from control micro computer is an end.

■ MN17581JNR (IC650) : DSP Controller

1. Terminal Layout


MN17581JNR
VDD 1
TCIB 2
INH 3
REQ IN 4
REQ IN 5
BUSY 6
7
8
D.RES 9
D.SRDY 10
D.SIRQ 11
DOLBY 12
D.MUTE 13
R.MUTE 14
P.ENG1 15
P.ENG2 16
CE 17
SPK OUT 18
19
20
D0 21
D1 22
D2 23
D3 24
D4 25
D5 26
D6 27
D7 28
A0 29
A1 30
A2 31
A3 32
64 OSC 1
63 OSC 2
62 VSS
61 X2
60 X1
59 SYNC
58 RESET
57 D.SDT OUT
56 INH
55 D.SCK OUT
54 SDT OUT
53 SDT IN
52 SCK IN
51 D.SCK IN
50 PBO
49
48
47
46
45 EXPS
44 A15
43 A14
42 A13
41 A12
40 A11
39 A10
38 A9
37 A8
36 A7
35 A6
34 A5
33 A4

2. Pin Functions

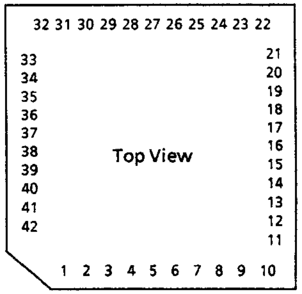
NO.	symbol	I/O	Functions	NO.	symbol	I/O	Functions
1	VDD	-	Power supply (+5V)	33	A4	I	P-ROM Add output
2	$\overline{\text{TCIB}}$	O	Connect to ground	34	A5	I	〃
3	$\overline{\text{INH}}$	O	Inhibit signal input	35	A6	O	〃
4	REQ IN	O	DSP-R signal input from IC900	36	A7	O	〃
5	REQ IN	O	〃	37	A8	O	〃
6	BUSY	O	DSP-8 signal output to IC900	38	A9	O	〃
7		O	Not used	39	A10	O	〃
8		O	〃	40	A11	O	〃
9	D.RES	O	Reset signal output to IC651	41	A12	O	〃
10	D.SRDY	O	SRDY signal output to IC651	42	A13	O	〃
11	D.SIRQ	O	SIRQ signal output to IC651	43	A14	I	〃
12	DOLBY	O	Dolby control signal output	44	A15	I	〃
13	D.MUTE	O	Mute signal output	45	$\overline{\text{EXPS}}$	I	Pull up
14	R.MUTE	O	〃	46		I	Not used
15	P.ENG1	O	Fan control signal output	47		I	〃
16	P.ENG2	O	〃	48		I	〃
17	$\overline{\text{CE}}$	O	CE signal output to IC659	49		O	〃
18	SPK OUT	-	Speaker out control signal input	50	PBO	O	Pull up
19		O	Not used	51	D.SCK IN	O	Clock signal input from IC651
20		O	〃	52	SCK IN	I	Clock signal input from IC900
21	D0	O	P-ROM data input	53	SDT IN	O	Data signal input from IC900
22	D1	O	〃	54	SDT OUT	O	Data signal output to IC900
23	D2	O	〃	55	D.SCK OUT	O	Clock signal output to IC651
24	D3	O	〃	56	$\overline{\text{INH}}$	O	Inhibit signal input
25	D4	O	〃	57	D.SDT OUT	O	Serial data output to IC651
26	D5	O	〃	58	$\overline{\text{RESET}}$	O	Reset signal input from IC904
27	D6	I	〃	59	$\overline{\text{SYNC}}$	O	Not used
28	D7	I	〃	60	X2	–	〃
29	A0	I	P-ROM Add output	61	X1	–	〃
30	A1	I	〃	62	VSS	–	Connect to ground
31	[illegible]	[illegible]	[illegible]	63	OSC2	O	Output of Xtal oscillation circuit
32	A3	•	〃	64	OSC1	I	Input to Xtal oscillation circuit

■ JCE4302A (IC406) : Digital filter and D / A Converter

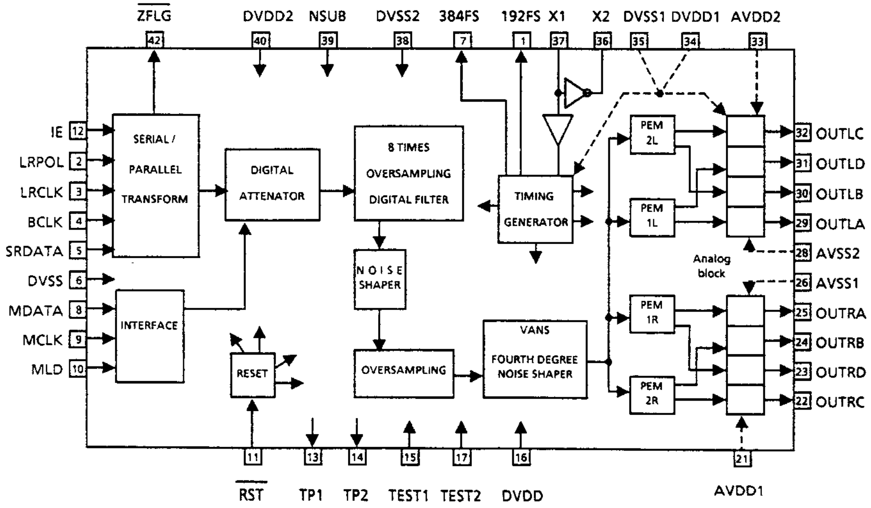
1. Outline

The JCE4302A is a D / A Converter IC with good linearity and high resolution more than 20 bits , and built-in 8 times oversampling digital filter and noise shaping DAC.High resolution data from digital filter is once sampled over sampling and compressed by unsturated fourth degree noise shaper for VANS (Victor Adcvanced Noise Shaper) ,while repress quantization noise of audio range at non problem level (– 120dB). Then it changed pulse wave (A,B,C,D) at changing for crystal clock by PEM(Pulse Edge Moduration) method which has no high frequency distortion, and directly transform to analog signal.
Zero cross and glitch distortion which were generated at rather type DAC are bad for quality; and they are excluded in principle by 1 bit movement of pulse wave so that correct linearity is obtainable.
Pulse wave A,B,C,D are compounded at external, and become analog signals which is faithful to input.

2. Terminal Layout


32 31 30 29 28 27 26 25 24 23 22
33
34
35
36
37
38
39
40
41
42
21
20
19
18
17
16
15
14
13
12
11
Top View
1 2 3 4 5 6 7 8 9 10

3. Internal Block Diagram


ZFLG 42
DVDD2 40
NSUB 39
DVSS2 38
384FS 7
192FS 1
X1 37
X2 36
DVSS1 35
DVDD1 34
AVDD2 33
IE 12
LRPOL 2
LRCLK 3
BCLK 4
SRDATA 5
DVSS 6
MDATA 8
MCLK 9
MLD 10
SERIAL / PARALLEL TRANSFORM
INTERFACE
DIGITAL ATTENATOR
8 TIMES OVERSAMPLING DIGITAL FILTER
NOISE SHAPER
OVERSAMPLING
VANS FOURTH DEGREE NOISE SHAPER
TIMING GENERATOR
RESET
PEM 2L
PEM 1L
PEM 1R
PEM 2R
Analog block
32 OUTLC
31 OUTLD
30 OUTLB
29 OUTLA
28 AVSS2
26 AVSS1
25 OUTRA
24 OUTRB
23 OUTRD
22 OUTRC
11 RST
13 TP1
14 TP2
15 TEST1
17 TEST2
16 DVDD
21 AVDD1

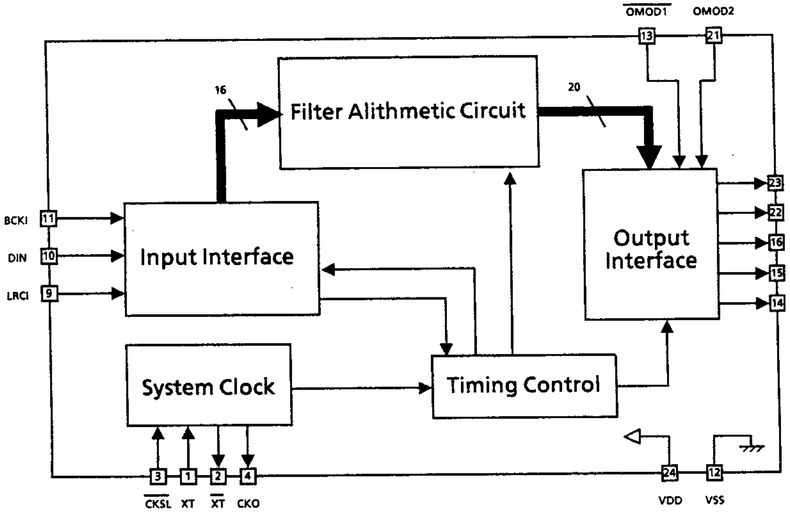
4. Terminal Function

Pin No.	Symbol	I/O	Active	Function
1	192FS	O	—	192fs output pin (Not used)
2	LRPOL	I	H	L-ch / R-ch switching pin.(H: When LRCLK is H, SRDATA is L-ch)
3	LRCLK	I		L / R switching signal of SRDATA.
4	BCLK	I		Bit transfer instruction input. (bit transfer at rise)
5	SRDATA	I		Serial data input.
6	DVSS	—		Digital system ground pin.
7	384FS	O		384fs output pin.
8	MDATA	I	L	Microprocessor command input pin. (Connect to GND)
9	MCLK	I	H	Microprocessor clock input pin. (bit transfer at rise)
10	MLD	I	H	Latch signal of MDATA.
11	$\overline{\text{RST}}$	I		Reset signal input pin. (L : Active)
12	IE	I	L	Changing the format of SRDATA. (Connect to GND)
13	TP1	O	—	Digital filter test outpit pin 1. (Not used)
14	TP2	O	—	Digital filter test outpit pin 2. (Not used)
15	TEST1	I	L	Digital filter test input pin 1. (Connect to GND)
16	DVDD	—	H	Digital system power supply pin. (common fixed electrical potential pin)
17	TEST2	I	L	Digital filter inspection test signal input pin. (Connect to GND)
18	NC		—	(Not used)
19	NC		—	(Not used)
20	NC		—	(Not used)
21	AVDD1	—		Analog system power supply pin.
22	OUT RC	O		Rch output C.
23	OUT RD	O		Rch output D.
24	OUT RB	O		Rch output B.
25	OUT RA	O		Rch output A.
26	AVSS1	—		Analog system ground. (Rch)
27	NC		—	(Not used)
28	AVSS2	—		Analog system ground. (Lch)
29	OUT LA	O		Lch output A.
30	OUT LB	O		Lch output B.
31	OUT LD	O		Lch output D.
32	OUT LC	O		Lch output C.
33	AVDD2	—		Analog system ground.
34	DVDD1	—		Digital system power supply pin.(timming generator section)
35	DVSS1	—		Digital system ground.
36	X2	O		X'tal oscillator pin.
37	X1	I		X'tal oscillator pin. (384fs = 16.9344MHz)
38	DVSS2	—		Digital system ground.
39	NSUB	—	H	Connects to D-Vdd.(silicon substrate fixed electrical potential pin)
40	DVDD2	—		Digital system power supply pin.
41	NC		—	(Not used)
42	$\overline{\text{ZFLG}}$	O		Detect the input data "0". (When input data is "0", ZFLG is L.)

▲—— ("—" is open)

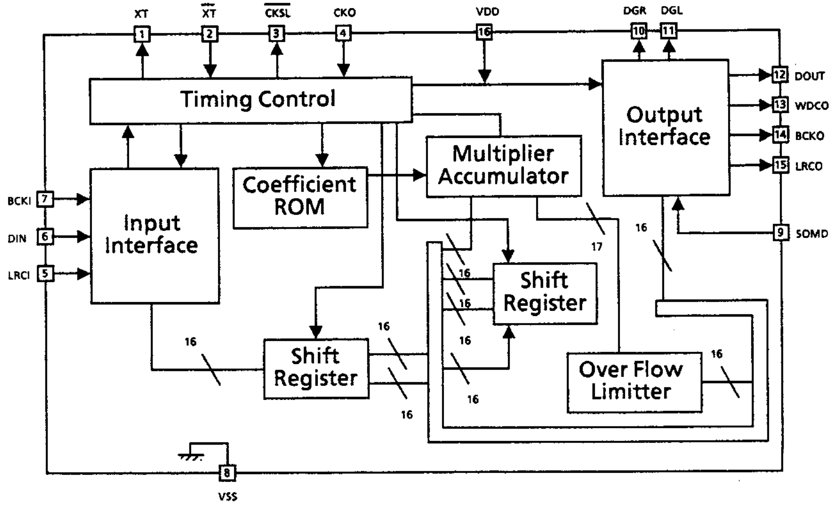
Internal Block Diagram of Other ICs

■ SM5818AS (IC655) : Digital Filter



$\overline{\text{OMOD1}}$
OMOD2
13
21
Filter Alithmetic Circuit
16
20
BCKI 11
DIN 10
LRCI 9
Input Interface
Output Interface
23 BCKO
22 WDCO
16 DGR
15 DGL
14 DG
System Clock
Timing Control
3 $\overline{\text{CKSL}}$
1 XT
2 $\overline{\text{XT}}$
4 CKO
24 VDD
12 VSS

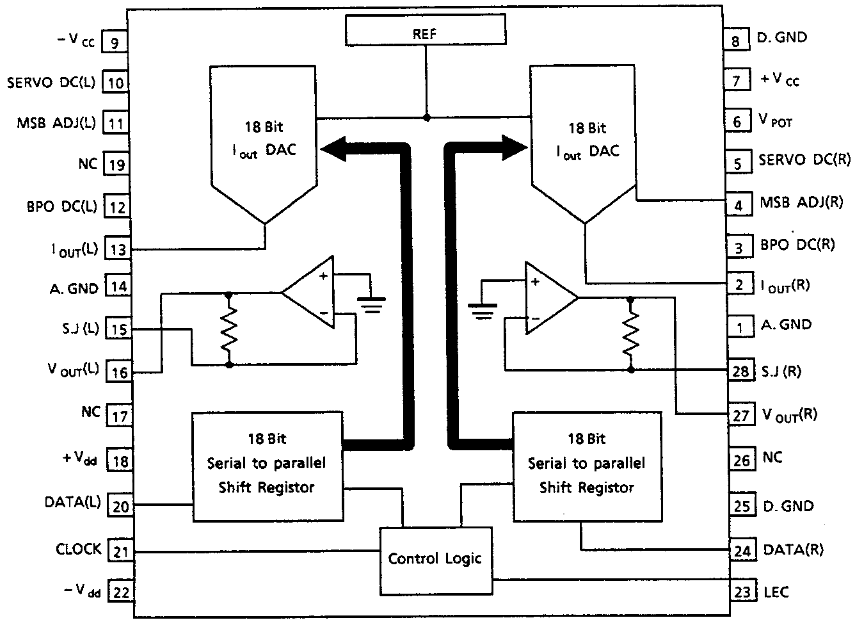
■ SM5807FS (IC656) : Digital Filter



XT 1
$\overline{\text{XT}}$ 2
$\overline{\text{CKSL}}$ 3
CKO 4
VDD 16
DGR 10
DGL 11
Timing Control
Output Interface
12 DOUT
13 WDCO
14 BCKO
15 LRCO
9 SOMD
BCKI 7
DIN 6
LRCI 5
Input Interface
Coefficient ROM
Multiplier Accumulator
Shift Register
Shift Register
Over Flow Limitter
16
17
8 VSS

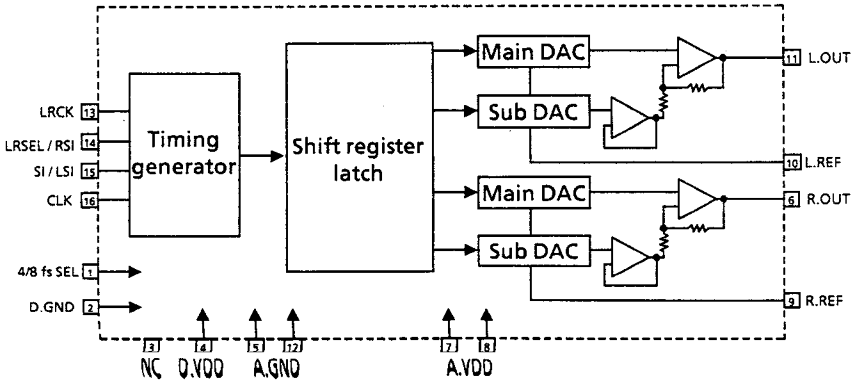
■ PCM1700U (IC657) : Digital to Analog Converter

1. Internal Block Diagram


−Vcc 9
SERVO DC(L) 10
MSB ADJ(L) 11
NC 19
BPO DC(L) 12
IOUT(L) 13
A. GND 14
S.J (L) 15
VOUT(L) 16
NC 17
+Vdd 18
DATA(L) 20
CLOCK 21
−Vdd 22
REF
18 Bit Iout DAC
18 Bit Iout DAC
18 Bit Serial to parallel Shift Registor
18 Bit Serial to parallel Shift Registor
Control Logic
8 D. GND
7 +Vcc
6 VPOT
5 SERVO DC(R)
4 MSB ADJ(R)
3 BPO DC(R)
2 IOUT(R)
1 A. GND
28 S.J (R)
27 VOUT(R)
26 NC
25 D. GND
24 DATA(R)
23 LEC

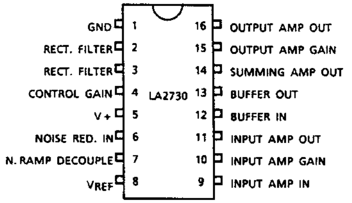
■ μPD6376 (IC658) : Digital to Analog Converter

1. Internal Block Diagram

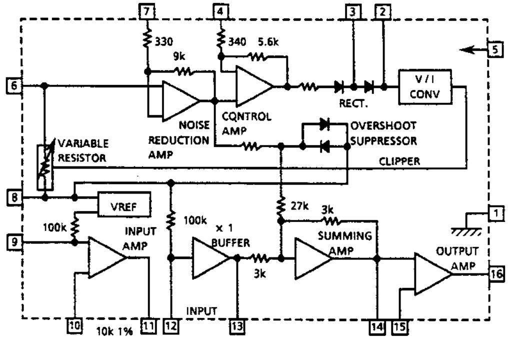

LRCK 13
LRSEL / RSI 14
SI / LSI 15
CLK 16
4/8 fs SEL 1
D.GND 2
Timing generator
Shift register latch
Main DAC
Sub DAC
Main DAC
Sub DAC
11 L.OUT
10 L.REF
6 R.OUT
9 R.REF
3 NC
4 D.VDD
5 12 A.GND
7 8 A.VDD

■ LA2730 (IC505) : Dolby B type Noise Reduction

1. Terminal Layout

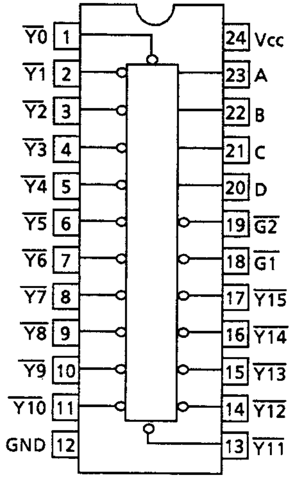

GND 1
RECT. FILTER 2
RECT. FILTER 3
CONTROL GAIN 4
V+ 5
NOISE RED. IN 6
N. RAMP DECOUPLE 7
VREF 8
LA2730
16 OUTPUT AMP OUT
15 OUTPUT AMP GAIN
14 SUMMING AMP OUT
13 BUFFER OUT
12 BUFFER IN
11 INPUT AMP OUT
10 INPUT AMP GAIN
9 INPUT AMP IN

2. Block Diagram


7
4
3
2
5
6
8
9
1
16
330
9k
340
5.6k
NOISE REDUCTION AMP
CONTROL AMP
RECT.
V/I CONV
OVERSHOOT SUPPRESSOR
CLIPPER
VARIABLE RESISTOR
VREF
100k
INPUT AMP
100k
× 1 BUFFER
27k
3k
3k
SUMMING AMP
OUTPUT AMP
INPUT
10
10k 1%
11
12
13
14
15

■ TC74HC154AP (IC901) : Decoder

1. Terminal layout & Block diagram


Y0 1
Y1 2
Y2 3
Y3 4
Y4 5
Y5 6
Y6 7
Y7 8
Y8 9
Y9 10
Y10 11
GND 12
24 Vcc
23 A
22 B
21 C
20 D
19 G2
18 G1
17 Y15
16 Y14
15 Y13
14 Y12
13 Y11

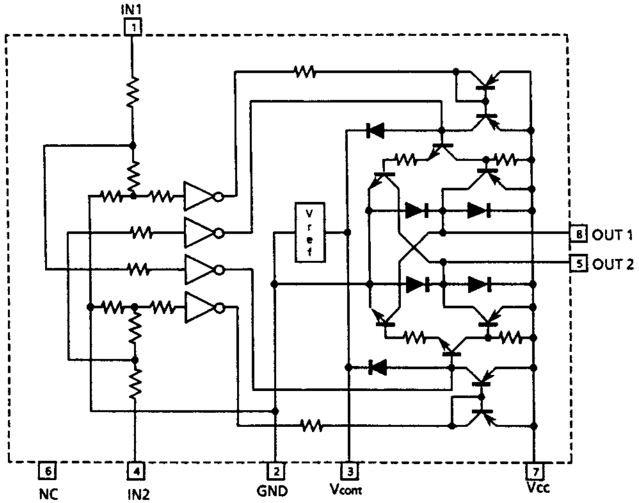
2. Functions table

Input						Selected Output
$\overline{G1}$	$\overline{G2}$	D	C	B	A	
L	L	L	L	L	L	$\overline{Y0}$
L	L	L	L	L	H	$\overline{Y1}$
L	L	L	L	H	L	$\overline{Y2}$
L	L	L	L	H	H	$\overline{Y3}$
L	L	L	H	L	L	$\overline{Y4}$
L	L	L	H	L	H	$\overline{Y5}$
L	L	L	H	H	L	$\overline{Y6}$
L	L	L	H	H	H	$\overline{Y7}$
L	L	H	L	L	L	$\overline{Y8}$
L	L	H	L	L	H	$\overline{Y9}$
L	L	H	L	H	L	$\overline{Y10}$
L	L	H	L	H	H	$\overline{Y11}$
L	L	H	H	L	L	$\overline{Y12}$
L	L	H	H	L	H	$\overline{Y13}$
L	L	H	H	H	L	$\overline{Y14}$
L	L	H	H	H	H	$\overline{Y15}$
×	H	×	×	×	×	NONE
H	×	×	×	×	×	NONE

× : Don't care

■ LB1639-CV (IC514) : Motor Driver

1. Block Diagram

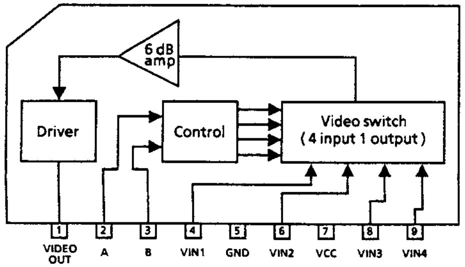

IN1
1
Vref
8 OUT 1
5 OUT 2
6 NC
4 IN2
2 GND
3 Vcont
7 Vcc

2. Functions table

IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

■LA7952 (IC600) : Video Switch with 6 dB amp.

1. Terminal Layout & Block Diagram

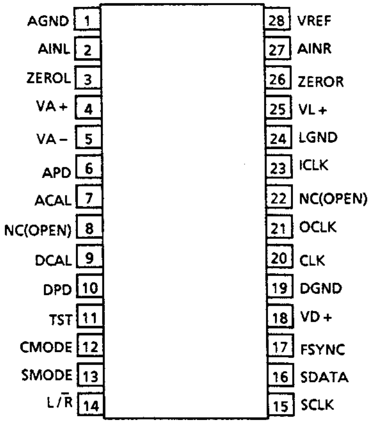

6 dB amp
Driver
Control
Video switch (4 input 1 output)
1 VIDEO OUT
2 A
3 B
4 VIN1
5 GND
6 VIN2
7 VCC
8 VIN3
9 VIN4

2. Pin functions

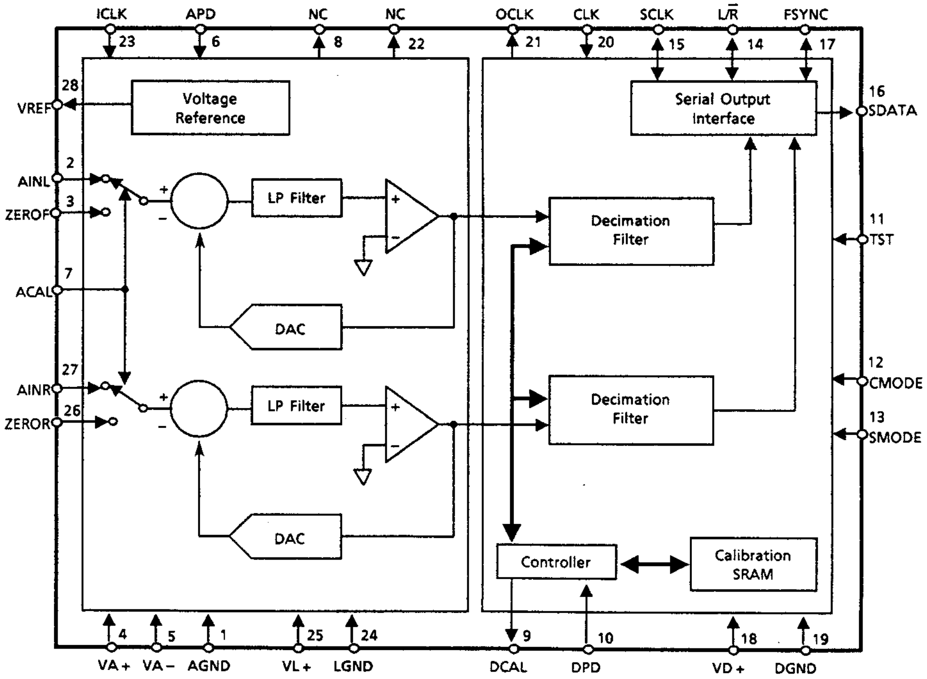
S2 (2 pin)	S3 (3 pin)	VIN1 (4 pin)	VIN2 (6 pin)	VIN3 (8 pin)	VIN4 (9 pin)
H	H	ON	OFF	OFF	OFF
L	H	OFF	ON	OFF	ON
H	L	OFF	OFF	ON	OFF
L	L	OFF	OFF	OFF	ON

■ CS5339-KP (IC654) : Analog to Digital Converter

1. Terminal layout

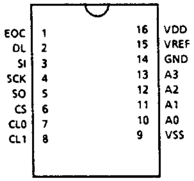

AGND 1
AINL 2
ZEROL 3
VA+ 4
VA− 5
APD 6
ACAL 7
NC(OPEN) 8
DCAL 9
DPD 10
TST 11
CMODE 12
SMODE 13
L/R̄ 14
28 VREF
27 AINR
26 ZEROR
25 VL+
24 LGND
23 ICLK
22 NC(OPEN)
21 OCLK
20 CLK
19 DGND
18 VD+
17 FSYNC
16 SDATA
15 SCLK

2. Block diagram

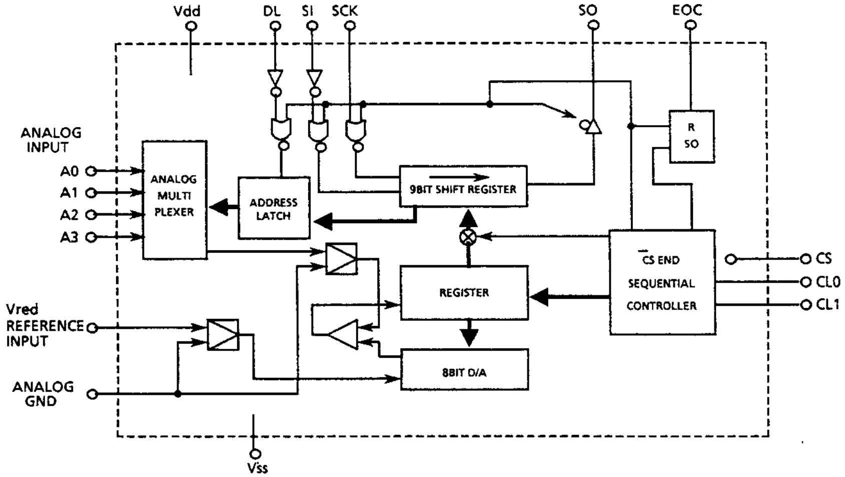

ICLK 23
APD 6
NC 8
NC 22
OCLK 21
CLK 20
SCLK 15
L/R̄ 14
FSYNC 17
28 VREF
Voltage Reference
Serial Output Interface
16 SDATA
2 AINL
3 ZEROL
7 ACAL
27 AINR
26 ZEROR
LP Filter
DAC
Decimation Filter
11 TST
12 CMODE
13 SMODE
Controller
Calibration SRAM
4 VA+
5 VA−
1 AGND
25 VL+
24 LGND
9 DCAL
10 DPD
18 VD+
19 DGND

■ μPD7001C (IC952) : Analog to Digital Converter

1. Terminal Layout

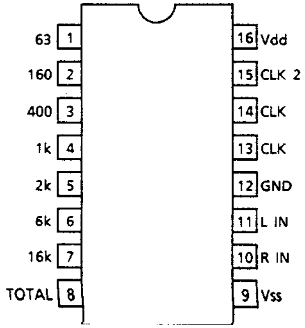

EOC 1
DL 2
SI 3
SCK 4
SO 5
CS 6
CL0 7
CL1 8
16 VDD
15 VREF
14 GND
13 A3
12 A2
11 A1
10 A0
9 VSS

2. Block Diagram


Vdd
DL
SI
SCK
SO
EOC
ANALOG INPUT
A0
A1
A2
A3
ANALOG MULTI PLEXER
ADDRESS LATCH
9BIT SHIFT REGISTER
R SO
REGISTER
CS END SEQUENTIAL CONTROLLER
8BIT D/A
CS
CL0
CL1
Vred REFERENCE INPUT
ANALOG GND
Vss

■ XR1091DCP (IC950) : Display Filter

1. Terminal Layout

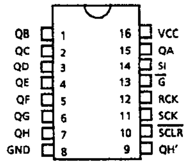

63 1
160 2
400 3
1k 4
2k 5
6k 6
16k 7
TOTAL 8
16 Vdd
15 CLK 2
14 CLK
13 CLK
12 GND
11 L IN
10 R IN
9 Vss

2. Pin functions

Pin No.	Symbol	Descriptions
1	63	Peak hold output of 63Hz band-pass filter
2	160	Peak hold output of 160Hz band-pass filter
3	400	Peak hold output of 400Hz band-pass filter
4	1k	Peak hold output of 1kHz band-pass filter
5	2k	Peak hold output of 2kHz band-pass filter
6	6k	Peak hold output of 6kHz band-pass filter
7	16k	Peak hold output of 16Hz band-pass filter
8	TOTAL	Total frequency output (peak hold)
9	Vss	Power supply (- 6V)
10	R IN	Right channel input
11	L IN	Left channel input : Connecting to ground
12	GND	Ground terminal
13	CLK	Connecting capacitor for clock
14	CLK	Connecting resistor to pin 13 for clock
15	CLK / 2	1/2 clock output
16	Vdd	Power supply (+ 6V)

■TC74HC595AP (IC904) : 8 bit shift register

1. Pin Layout

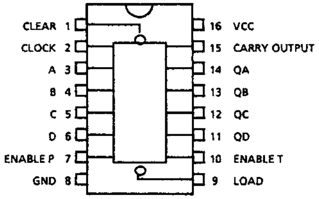

QB 1
QC 2
QD 3
QE 4
QF 5
QG 6
QH 7
GND 8
16 VCC
15 QA
14 SI
13 G
12 RCK
11 SCK
10 SCLR
9 QH'

2. Pin functins

Inputs					Function
SI	SCK	SCLR	RCK	G	
×	×	×	×	H	Output(QA~QH)disable
×	×	×	×	L	Output(QA~QH)enable
×	×	L	×	×	Shift register is cleared.
L	↑	H	×	×	Condition of shift register in initial stage is "L". In the other stage , data from the former stage is stored.
H	↑	H	×	×	Condition of shift register in initial stage is "H". In the other stages , data from the former stage is stored.
×	↓	H	×	×	Shift register does not change.
×	×	×	↑	×	Shift register data is stored in the storage register.
×	×	×	↓	×	Storage register does not change.

■TC74HC163AP (IC403,404) : Synchronous Presettable 4-Bit Counter

1. Terminal Layout


CLEAR 1
CLOCK 2
A 3
B 4
C 5
D 6
ENABLE P 7
GND 8
16 VCC
15 CARRY OUTPUT
14 QA
13 QB
12 QC
11 QD
10 ENABLE T
9 LOAD

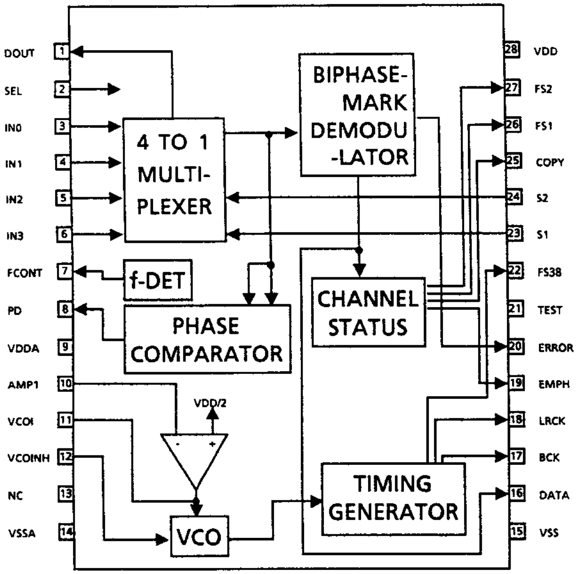
2. Pin functions

Inputs					Outputs				Function
CLR	LD	PE	TE	CK	QA	QB	QC	QD	
L	×	×	×	↑	L	L	L	L	Reset to "0"
H	L	×	×	↑	A	B	C	D	Preset data
H	H	×	L	↑	No change				No count
H	H	L	×	↑	No change				No count
H	H	H	H	↑	Count up				Count up
×	H	×	×	↓	No change				No count

Note × : Don't care
A,B,C,D: Logic level of data inputs

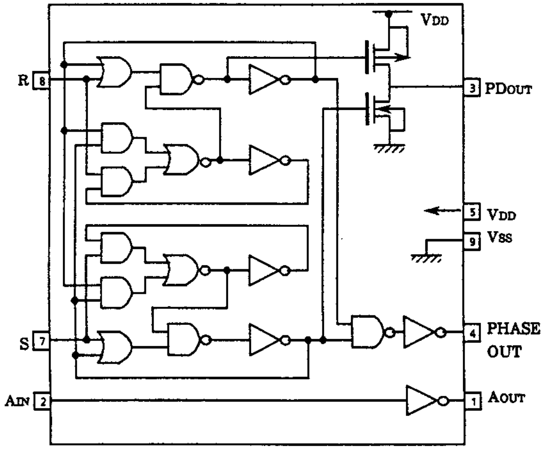
■ TC9245N (IC401) : Digital audio interface

1 . Internal Blockdiagram


DOUT 1
SEL 2
IN0 3
IN1 4
IN2 5
IN3 6
FCONT 7
PD 8
VDDA 9
AMP1 10
VCOI 11
VCOINH 12
NC 13
VSSA 14
VDD 28
FS2 27
FS1 26
COPY 25
S2 24
S1 23
FS38 22
TEST 21
ERROR 20
EMPH 19
LRCK 18
BCK 17
DATA 16
VSS 15
4 TO 1 MULTI-PLEXER
BIPHASE-MARK DEMODU-LATOR
f-DET
PHASE COMPARATOR
CHANNEL STATUS
VDD/2
VCO
TIMING GENERATOR

■ TC5081AP(IC402) : Phase detector for the PLL synthesizer

1. Internal Blockdiagram

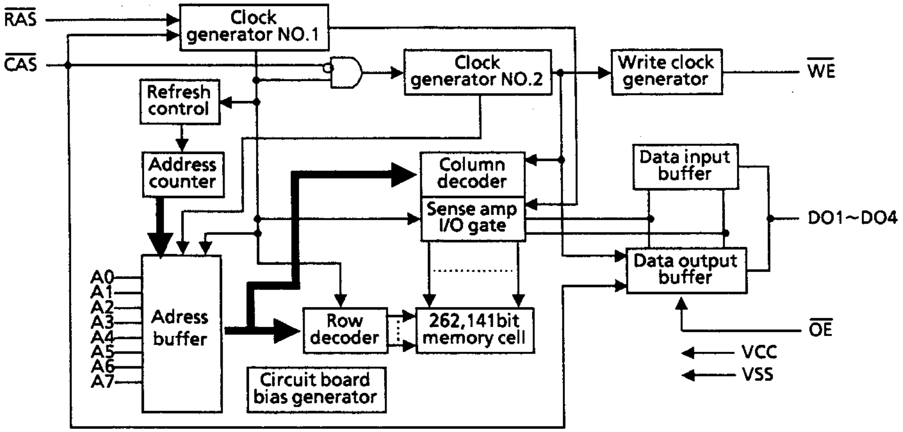

VDD
R 8
3 PDOUT
5 VDD
9 VSS
S 7
4 PHASE OUT
AIN 2
1 AOUT

2. Pin Functions

Pin NO	Function
1	Inverted output of AIN
2	Pulse input
3	Output the positive and negative pulses which are proportion to phase difference of input R,S. High impedance both phase of R and S are the same.
4	"L" while it is output from PDout.
5	Power supply
6	Non connection
7	Pulse input (Phase detector input)
8	Pulse input (Phase detector input)
9	GND

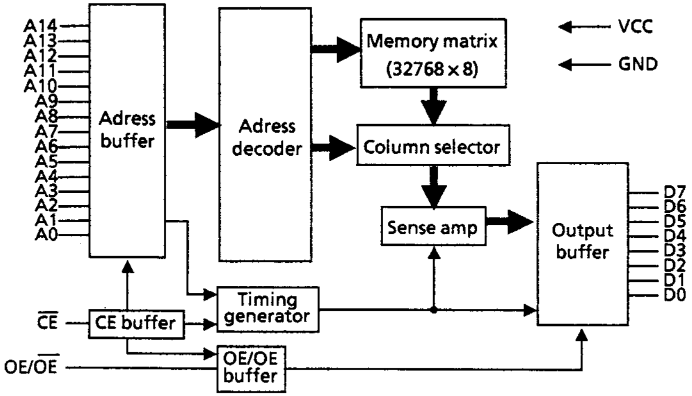
■ LH535949 (IC659) : 256K (32K × 8)bit mask ROM

1 . Internal Block Diagram


RAS
CAS
Clock generator NO.1
Clock generator NO.2
Write clock generator
WE
Refresh control
Address counter
Column decoder
Sense amp I/O gate
Data input buffer
DO1~DO4
Data output buffer
OE
A0
A1
A2
A3
A4
A5
A6
A7
Adress buffer
Row decoder
262,141bit memory cell
Circuit board bias generator
VCC
VSS

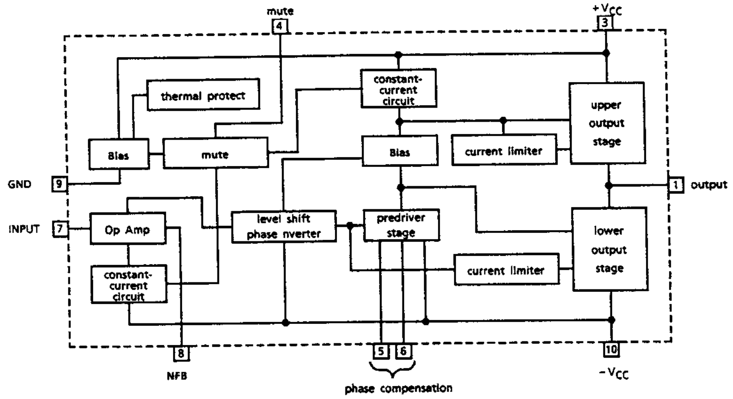
■ MB81464-12 (IC652,653) : 256K(64K × 4) bit D-RAM

1 . Internal Block Diagram


A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
Adress buffer
Adress decoder
Memory matrix (32768 × 8)
VCC
GND
Column selector
Sense amp
Output buffer
D7
D6
D5
D4
D3
D2
D1
D0
Timing generator
CE
CE buffer
OE/OE
OE/OE buffer

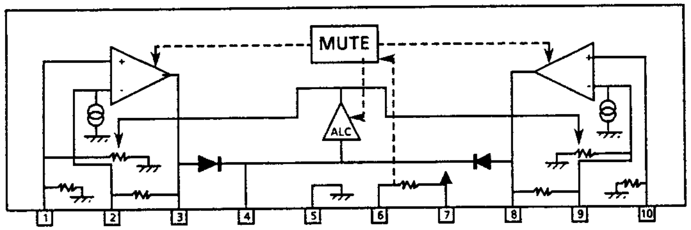
■ µPC1188H (IC021,022) : Power Amplifier

Block Diagram

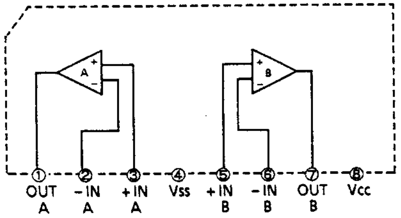

mute
4
+Vcc
3
thermal protect
constant-current circuit
upper output stage
Bias
mute
Bias
current limiter
GND
9
output
1
INPUT
7
Op Amp
level shift phase nverter
predriver stage
lower output stage
constant-current circuit
current limiter
8
NFB
5
6
phase compensation
10
-Vcc

■ BA3312N(IC809) : OP amp with auto level control

1. Internal Block


MUTE
ALC
1
2
3
4
5
6
7
8
9
10

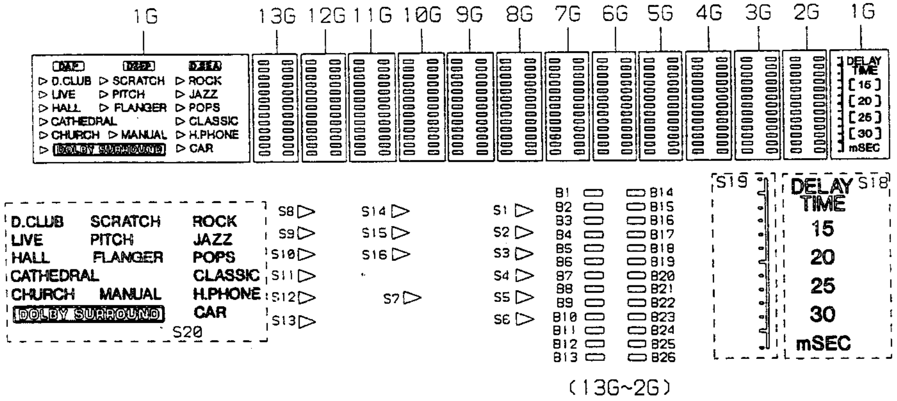
■ VC4580L (IC301,405,409,410,512, 661, 663,808) : Dual OP amp
BA15218N (IC506) : Dual OP amp
XRA15218N (IC304,512,808) : Dual OP amp


A
B
① OUT A
② -IN A
③ +IN A
④ Vss
⑤ +IN B
⑥ -IN B
⑦ OUT B
⑧ Vcc

Internal Connections of FL Display

■ FL901 : ELU0001-125

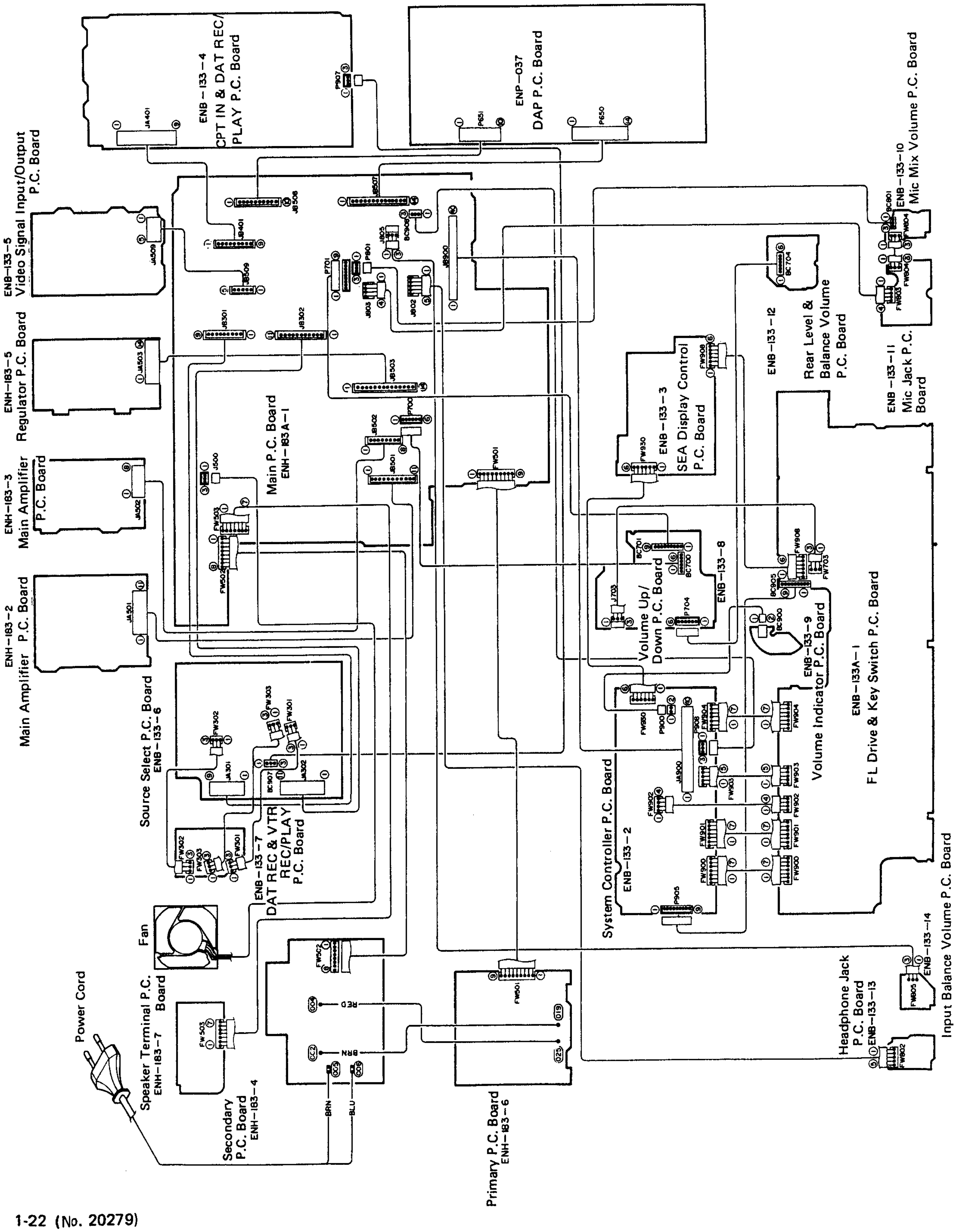
1.Grid Assightment


1G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
DAP
D.SEP
D.SEA
D.CLUB
SCRATCH
ROCK
LIVE
PITCH
JAZZ
HALL
FLANGER
POPS
CATHEDRAL
CLASSIC
CHURCH
MANUAL
H.PHONE
DOLBY SURROUND
CAR
DELAY TIME
[15]
[20]
[25]
[30]
mSEC
S20
S8
S9
S10
S11
S12
S13
S14
S15
S16
S7
S1
S2
S3
S4
S5
S6
B1
B2
B3
B4
B5
B6
B7
B8
B9
B10
B11
B12
B13
B14
B15
B16
B17
B18
B19
B20
B21
B22
B23
B24
B25
B26
S19
S18
15
20
25
30
(13G~2G)

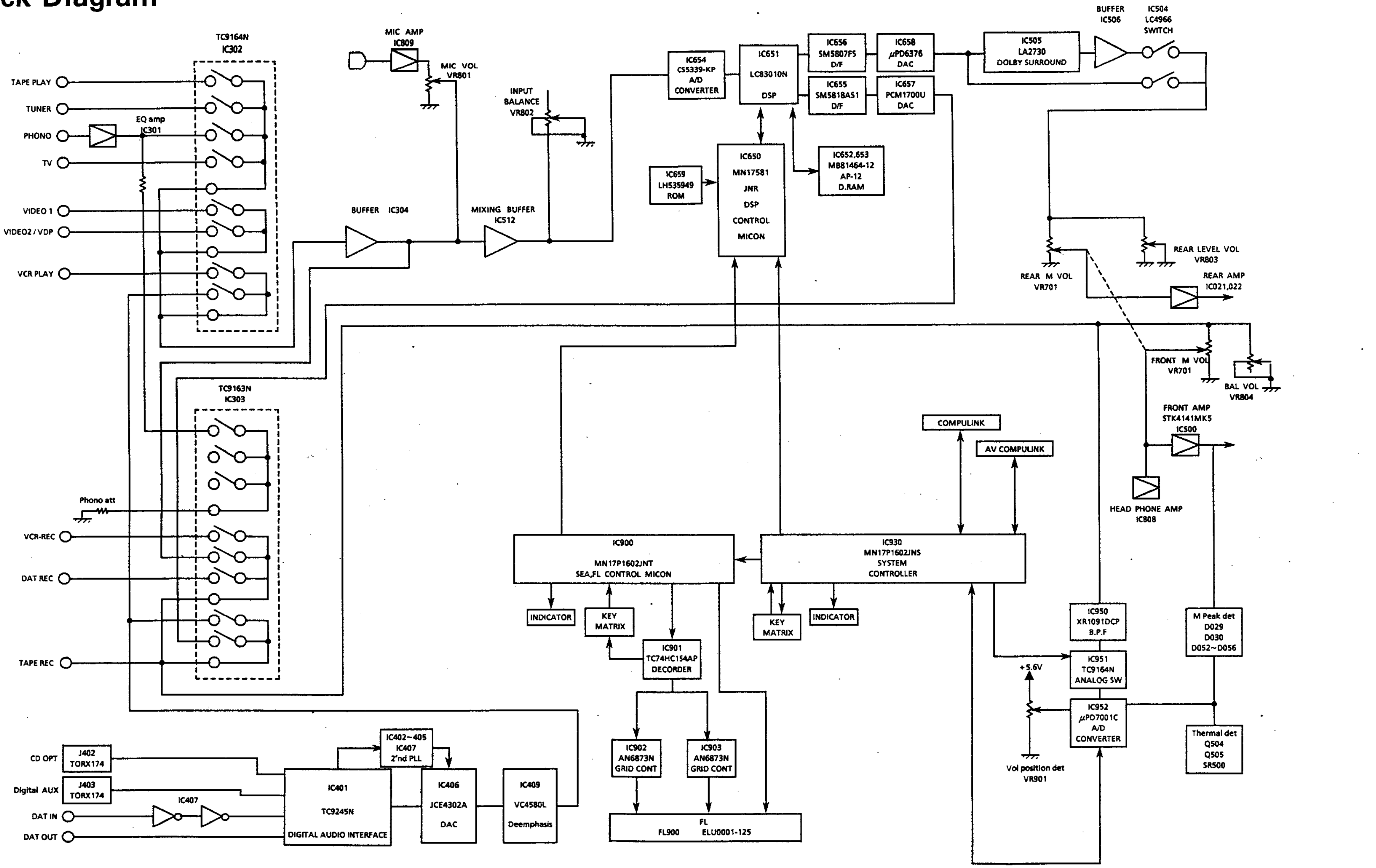
2.Anode Connection

	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1	S8
P2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	S1
P3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	S2
P4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	S9
P5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	S3
P6	B6	B6	B6	B6	B6	B6	B6	B6	B6	B6	B6	B6	S11
P7	B7	B7	B7	B7	B7	B7	B7	B7	B7	B7	B7	B7	S4
P8	B8	B8	B8	B8	B8	B8	B8	B8	B8	B8	B8	B8	S12
P9	B9	B9	B9	B9	B9	B9	B9	B9	B9	B9	B9	B9	S5
P10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	S7
P11	B11	B11	B11	B11	B11	B11	B11	B11	B11	B11	B11	B11	S6
P12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	B12	
P13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	B13	S20
P14	B14	B14	B14	B14	B14	B14	B14	B14	B14	B14	B14	B14	S14
P15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	B15	S15
P16	B16	B16	B16	B16	B16	B16	B16	B16	B16	B16	B16	B16	S16
P17	B17	B17	B17	B17	B17	B17	B17	B17	B17	B17	B17	B17	
P18	B18	B18	B18	B18	B18	B18	B18	B18	B18	B18	B18	B18	
P19	B19	B19	B19	B19	B19	B19	B19	B19	B19	B19	B19	B19	
P20	B20	B20	B20	B20	B20	B20	B20	B20	B20	B20	B20	B20	S18
P21	B21	B21	B21	B21	B21	B21	B21	B21	B21	B21	B21	B21	S19
P22	B22	B22	B22	B22	B22	B22	B22	B22	B22	B22	B22	B22	[30]
P23	B23	B23	B23	B23	B23	B23	B23	B23	B23	B23	B23	B23	[25]
P24	B24	B24	B24	B24	B24	B24	B24	B24	B24	B24	B24	B24	[20]
P25	B25	B25	B25	B25	B25	B25	B25	B25	B25	B25	B25	B25	[15]
P26	B26	B26	B26	B26	B26	B26	B26	B26	B26	B26	B26	B26	-
P27	-	-	-	-	-	-	-	-	-	-	-	-	D.SEA
P28	-	-	-	-	-	-	-	-	-	-	-	-	D.SEP
P29	-	-	-	-	-	-	-	-	-	-	-	-	DAP
P30	-	-	-	-	-	-	-	-	-	-	-	-	S10
P31	-	-	-	-	-	-	-	-	-	-	-	-	S13

Connection Diagram

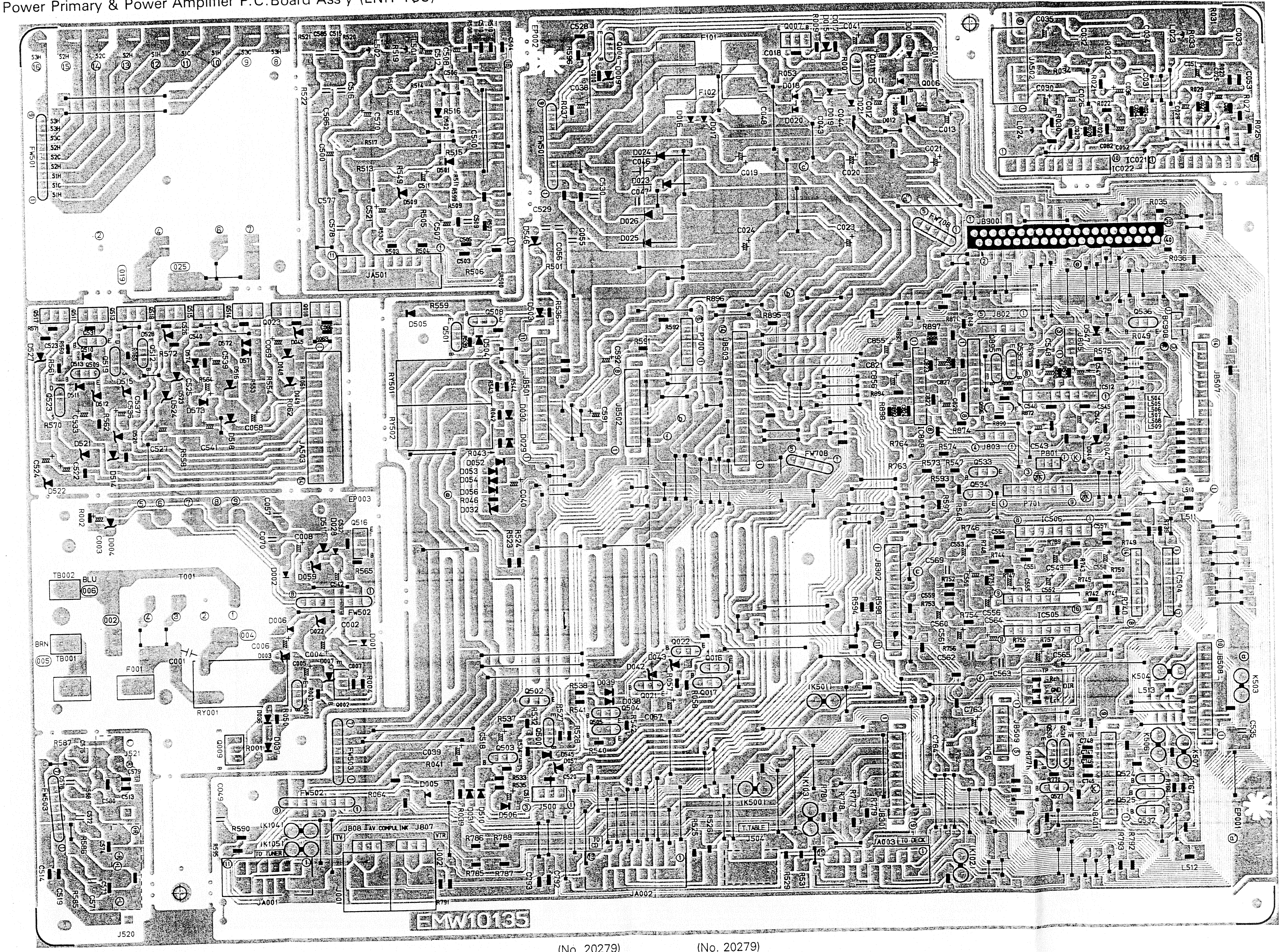

ENB-133-4
CPT IN & DAT REC/PLAY P.C. Board
JA401
P907
ENP-037
DAP P.C. Board
P651
P650
ENB-133-5
Video Signal Input/Output P.C. Board
JA509
ENH-183-5
Regulator P.C. Board
JA503
ENH-183-3
Main Amplifier P.C. Board
JA502
ENH-183-2
Main Amplifier P.C. Board
JA501
JB508
JB507
JB401
JB509
JB805
BC906
P801
P701
JB900
JB803
JB802
JB301
JB302
JB503
P700
JB502
JB501
J500
FW503
FW502
FW501
Main P.C. Board
ENH-183A-1
Source Select P.C. Board
ENB-133-6
FW302
FW303
FW301
JA301
BC907
JA302
ENB-133-7
DAT REC & VTR REC/PLAY P.C. Board
Fan
Power Cord
Speaker Terminal P.C. Board
ENH-183-7
Secondary P.C. Board
ENH-183-4
RED
BRN
BLU
Primary P.C. Board
ENH-183-6
System Controller P.C. Board
ENB-133-2
FW950
P900
P906
JA900
FW900
FW901
FW902
FW903
FW904
P905
Volume Up/Down P.C. Board
ENB-133-8
BC701
BC700
J703
P704
SEA Display Control P.C. Board
ENB-133-3
FW930
FW908
ENB-133-12
Rear Level & Balance Volume P.C. Board
BC704
ENB-133-11
Mic Jack P.C. Board
ENB-133-10
Mic Mix Volume P.C. Board
BC801
FW804
FW803
ENB-133-9
Volume Indicator P.C. Board
BC905
BC900
FW703
ENB-133A-1
FL Drive & Key Switch P.C. Board
Input Balance Volume P.C. Board
ENB-133-14
FW805
Headphone Jack P.C. Board
ENB-133-13
FW802

Block Diagram

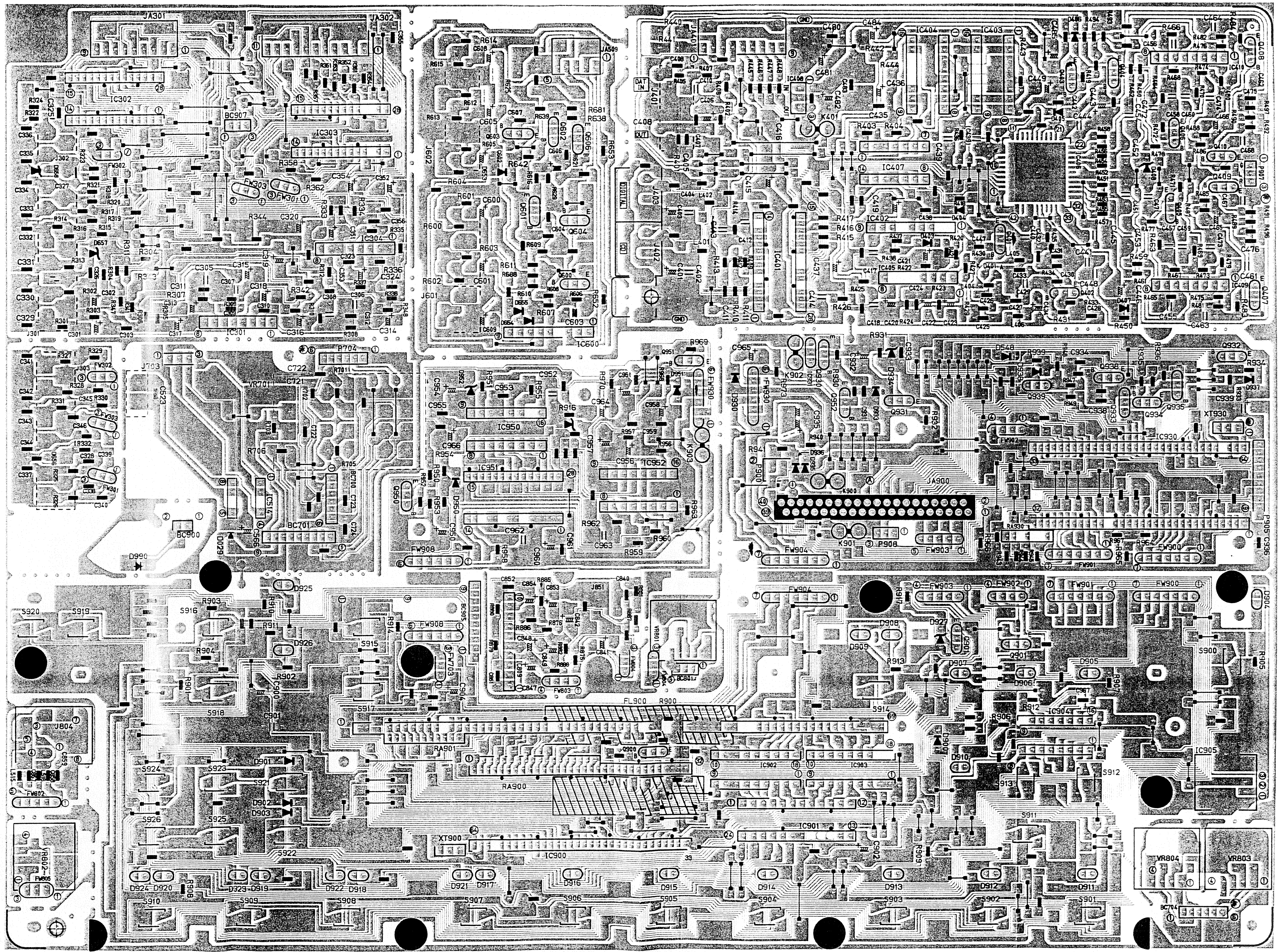

TC9164N
IC302
TAPE PLAY
TUNER
PHONO
TV
EQ amp
IC301
VIDEO 1
VIDEO2 / VDP
VCR PLAY
MIC AMP
IC809
MIC VOL
VR801
INPUT
BALANCE
VR802
BUFFER IC304
MIXING BUFFER
IC512
IC654
CS5339-KP
A/D
CONVERTER
IC651
LC83010N
DSP
IC656
SM5807FS
D/F
IC655
SM5818AS1
D/F
IC658
μPD6376
DAC
IC657
PCM1700U
DAC
IC505
LA2730
DOLBY SURROUND
BUFFER
IC506
IC504
LC4966
SWITCH
IC659
LH535949
ROM
IC650
MN17581
JNR
DSP
CONTROL
MICON
IC652,653
MB81464-12
AP-12
D.RAM
REAR M VOL
VR701
REAR LEVEL VOL
VR803
REAR AMP
IC021,022
FRONT M VOL
VR701
BAL VOL
VR804
FRONT AMP
STK4141MK5
IC500
HEAD PHONE AMP
IC808
TC9163N
IC303
Phono att
VCR-REC
DAT REC
TAPE REC
COMPULINK
AV COMPULINK
IC900
MN17P1602JNT
SEA,FL CONTROL MICON
IC930
MN17P1602JNS
SYSTEM
CONTROLLER
INDICATOR
KEY
MATRIX
KEY
MATRIX
INDICATOR
IC901
TC74HC154AP
DECORDER
IC950
XR1091DCP
B.P.F
IC951
TC9164N
ANALOG SW
M Peak det
D029
D030
D052~D056
+5.6V
IC952
μPD7001C
A/D
CONVERTER
Vol position det
VR901
Thermal det
Q504
Q505
SR500
CD OPT
J402
TORX174
Digital AUX
J403
TORX174
DAT IN
DAT OUT
IC407
IC402~405
IC407
2'nd PLL
IC401
TC9245N
DIGITAL AUDIO INTERFACE
IC406
JCE4302A
DAC
IC409
VC4580L
Deemphasis
IC902
AN6873N
GRID CONT
IC903
AN6873N
GRID CONT
FL
FL900 ELU0001-125

Printed Circuit Boards

■ Power Primary & Power Amplifier P.C.Board Ass'y (ENH-183)

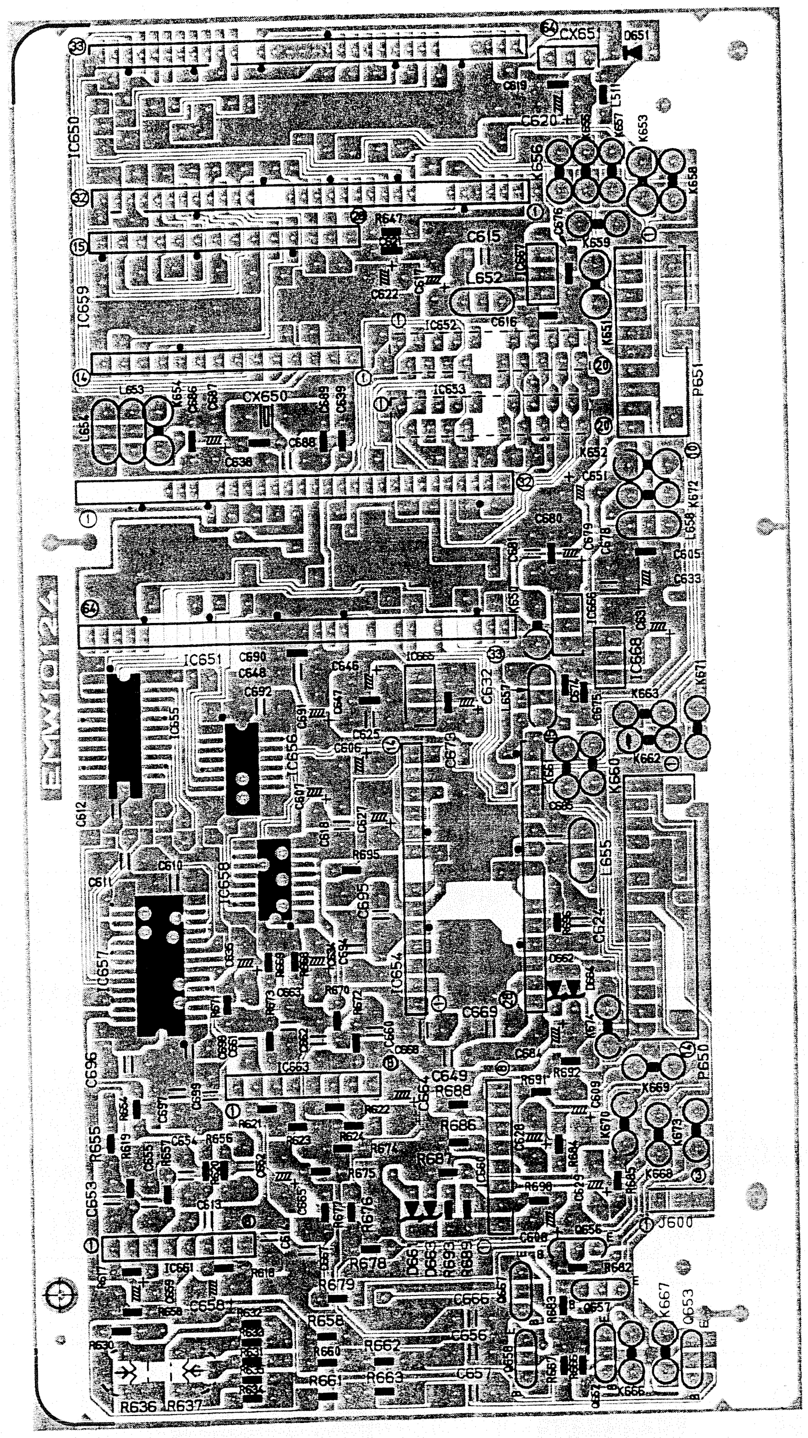

EMW10135
FW501
JA501
JA503
RY501
RY502
JB501
JB502
JB503
JB900
JB507
JB508
JB509
JB302
IC505
IC506
IC504
IC512
IC021
IC022
IC808
TB002
TB001
BLU
BRN
T001
F001
RY001
F101
F102
J520
J521
FW503
FW502
FW504
FW708
J802
J803
J500
J504
JB808 AV COMPULINK
J807
TO TUNER
TV
VTR
TO DECK
T.TABLE
JA001
JA002
JA003
EP001
EP002
EP003
K503
K504
L512
L513
IK501
IK5001
IK1041
IK1051
IK103
IK102

■ System Control & Digital, Analog Input/Output P.C.Board Ass'y (ENB-133)


JA301
JA302
IC302
IC303
IC301
IC304
BC907
IC404
IC403
IC407
IC402
IC405
IC600
IC950
IC951
IC952
IC930
JA900
IC900
IC901
IC902
IC903
IC904
IC905
FL900
RA900
RA901
XT900
XT930
VR701
VR801
VR802
VR803
VR804
BC701
BC900
BC704
J601
J602
J851
J804
K401
K900
K901
K902
K903
S900
S901
S902
S903
S904
S905
S906
S907
S908
S909
S910
S911
S912
S913
S914
S915
S916
S917
S918
S919
S920
S921
S922
S923
S924
S925
S926
FW900
FW901
FW902
FW903
FW904
FW908
DAT IN
OUT
GND

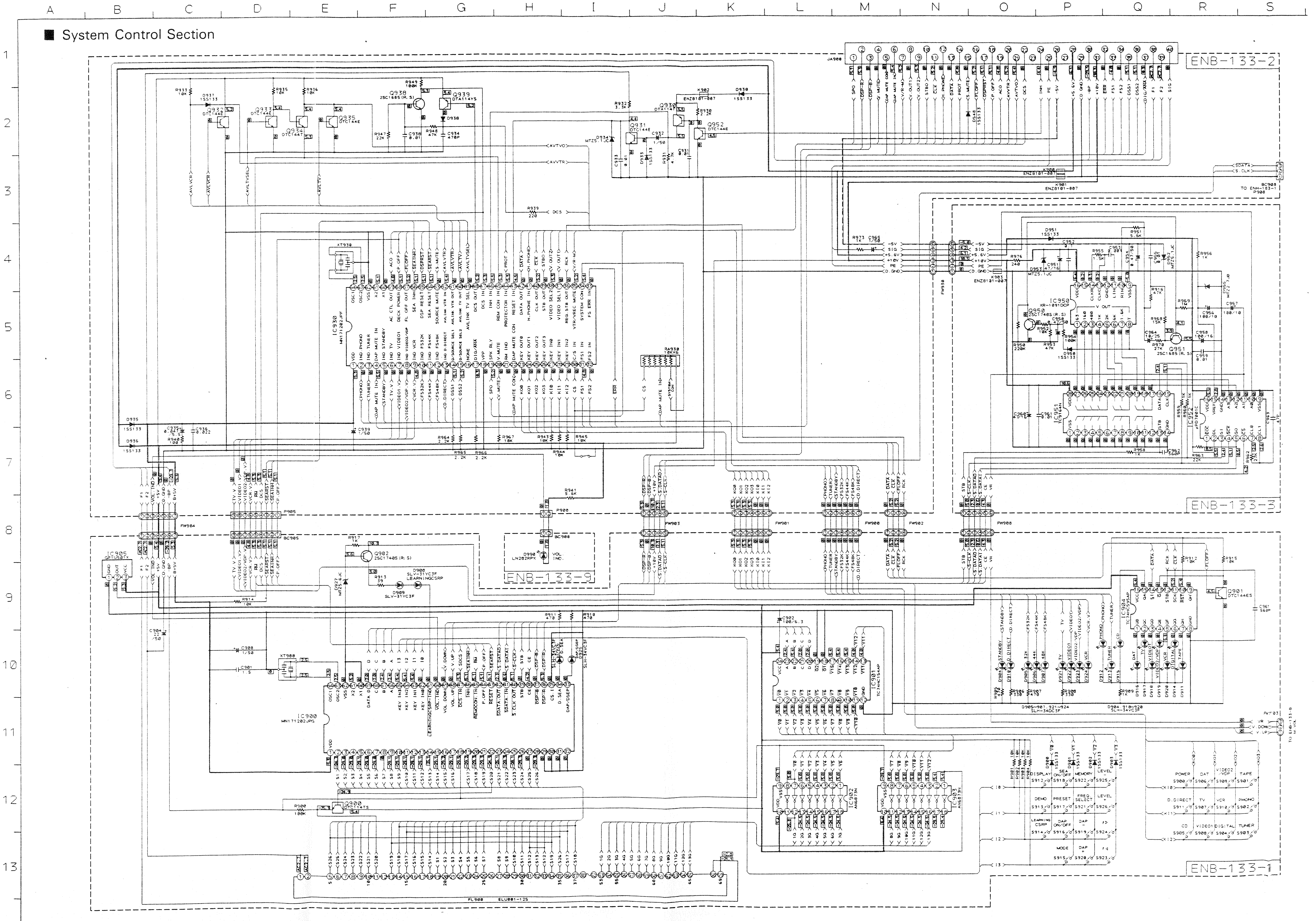
AX-E95TN

■ DSP P.C.Board Ass'y (ENP-037)


IC650
IC659
CX650
CX651
P651
IC651
IC652
IC653
IC655
IC656
IC657
IC658
IC661
P650
J600
L652
L653
L655
EMW0124

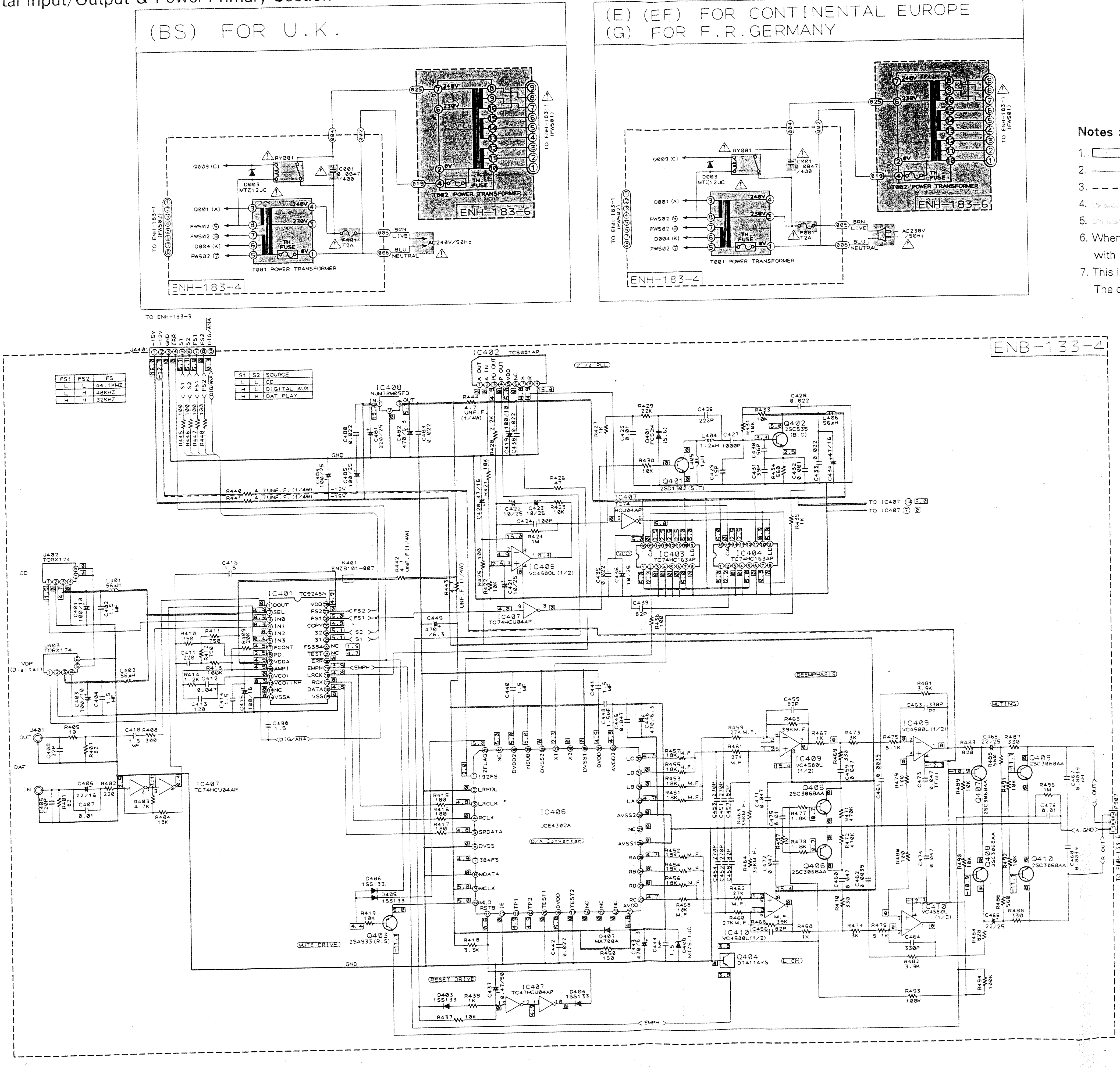
(No. 20279)

System Control Section


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
1
2
3
4
5
6
7
8
9
10
11
12
13
14
JA900
ENB-133-2
ENB-133-3
ENB-133-1
ENB-133-9
IC930
MN171202JFF
XT930
IC900
MN171202JPG
XT900
IC950
XR-10910CP
IC951
TC9164N
IC952
µPD7001C
IC904
TC74HC595AP
IC901
TC74HC154AP
IC902
AN6873N
IC903
AN6873N
IC905
GP1U52X
Q938
2SC1685(R, S)
Q939
DTA114YS
Q932
DTC144E
Q933
DTC144E
Q934
DTC144E
Q935
DTC144E
Q930
DTA114YS
Q931
DTC144E
Q952
DTC144E
Q950
2SC1740S(R, S)
Q951
2SC1685(R, S)
Q901
DTC144ES
Q902
2SC1740S(R, S)
Q900
DTC144TS
D998
LN282RPX
VOL IND.
D900
SLV-31YC3F
LEARNING CSRP
D909
SLV-31VC3F
K900
ENZ0101-007
K901
ENZ0101-007
K902
ENZ0101-007
K903
ENZ0101-007
BC903
TO ENH-133-1
P900
FW904
P905
BC905
P908
BC908
FW903
FW901
FW900
FW902
FW908
FW930
RA930
10K×6
FL900
ELU001-125
D905~907, 921~924
SLH-34DC3F
D904, 910~920
SLH-34VC3F
TO ENB-133-8
M. VR.
POWER S900
DAT S906
VIDEO2/VCP S909
TAPE
D.DIRECT S911
TV S907
VCR S910
PHONO
CD S905
VIDEO1 S908
DIGITAL S904
TUNER
DISPLAY S912
SEA ON/OFF S918
MEMORY S922
LEVEL + S925
DEMO S913
PRESET S917
FREQ SELECT S921
LEVEL − S926
LEARNING CSRP S914
DAP ON/OFF S916
DAP + S919
f▷ S924
MODE S915
DAP − S920
f◁ S923

AX-E95TN

Digital Input/Output & Power Primary Section


A B C D E F G H I J K L M N O P Q R S
1 2 3 4 5 6 7 8 9 10 11 12 13 14
(BS) FOR U.K.
(E) (EF) FOR CONTINENTAL EUROPE
(G) FOR F.R.GERMANY
T001 POWER TRANSFORMER
T002 POWER TRANSFORMER
ENH-183-4
ENH-183-6
TO ENH-183-1 (FW502)
TO ENH-183-1 (FW501)
AC240V/50Hz
AC230V /50Hz
BRN LIVE
BLU NEUTRAL
F001 T2A
RY001
D003 MTZ12JC
C001 0.0047 /400
TO ENH-183-3
JA401
+15V
-12V
GND
ERR
S1
S2
FS1
FS2
DIG/ANA
ENB-133-4
IC402 TC9081AP
IC408 NJM78M05FD
2nd PLL
IC401 TC9245N
IC403 TC74HC163AP
IC404 TC74HC163AP
IC405 VC4580L (1/2)
IC407 TC74HCU04AP
IC406 JCE4302A
D/A Converter
IC409 VC4580L (1/2)
IC410 VC4580L (1/2)
Q401 2SD1302(S,T)
Q402 2SC535 (B,C)
Q403 2SA933 (R,S)
Q404 DTA114YS
Q405 2SC3068AA
Q406 2SC3068AA
Q407 2SC3068AA
Q408 2SC3068AA
Q409 2SC3068AA
Q410 2SC3068AA
J402 TORX174
J403 TORX174
CD
VDP (Digital)
J401 OUT
DAT
IN
K401 ENZ8101-007
DEEMPHASIS
MUTING
MUTE DRIVE
RESET DRIVE
L CH
EMPH
L OUT
R OUT
A.GND
TO ENB-133-6 AUDIO SOURCE SELECTOR
TO IC407 ⑬
TO IC407 ⑦

FS1	FS2	FS
L	L	44.1KMZ
L	H	48KHZ
H	H	32KHZ

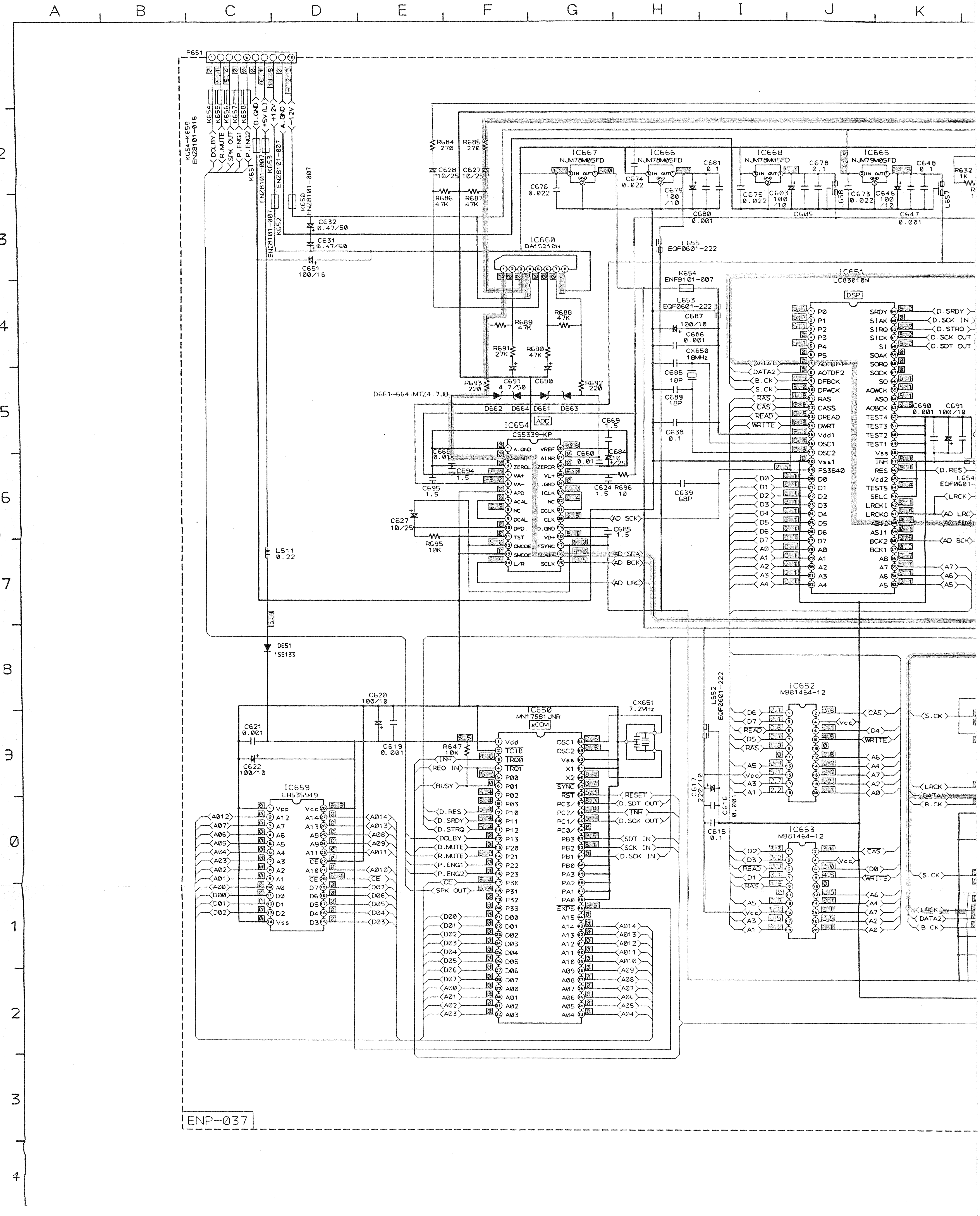
S1	S2	SOURCE
L	L	CD
H	L	DIGITAL AUX
H	H	DAT PLAY

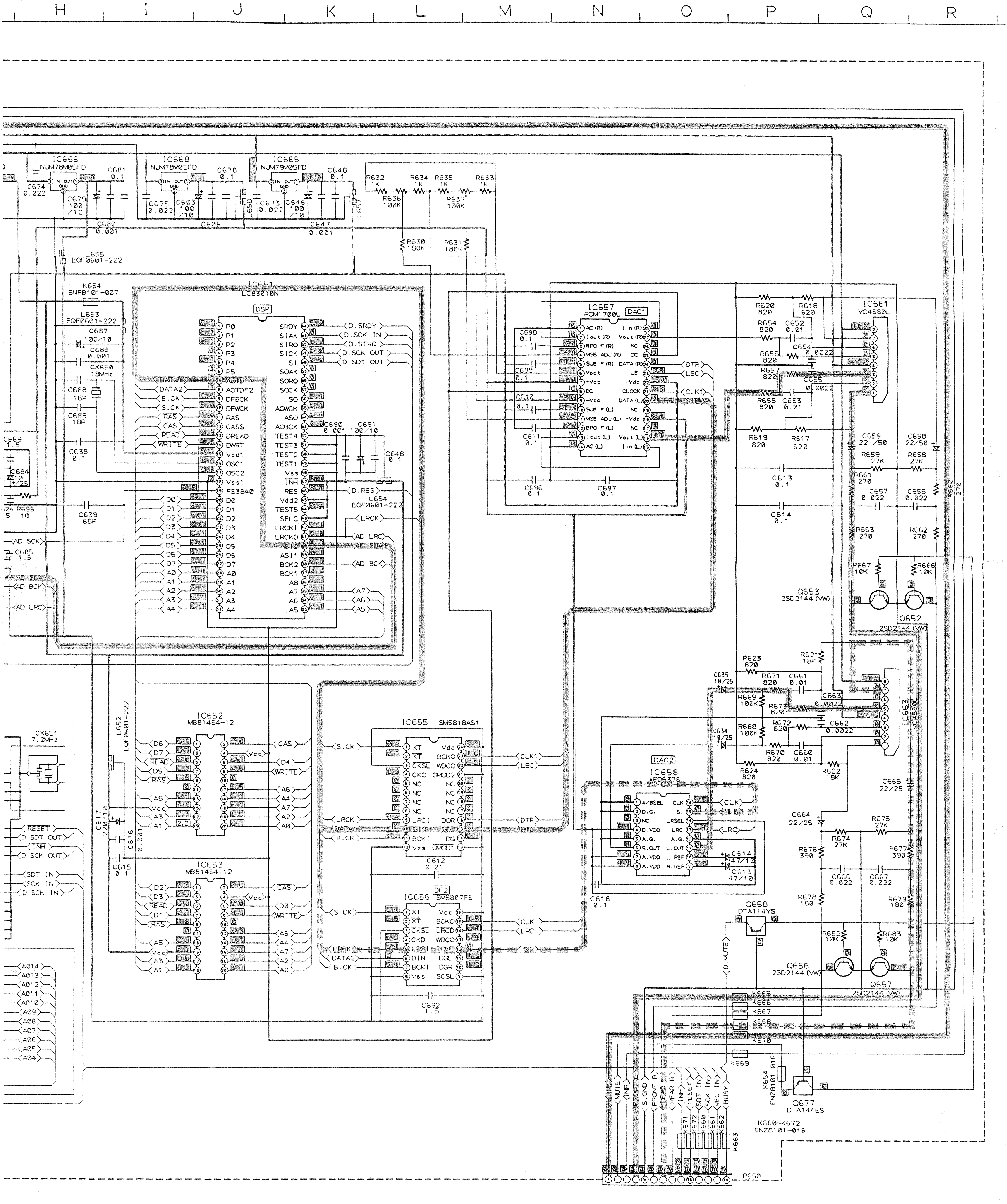
Notes :

1. ▭ Shows DC voltage to the chassis with no signal input.
2. ——— indicates +B power supply.
3. – – – – indicates –B power supply.
4. ▨ indicates Front signal path.
5. ▨ indicates Rear signal path.
6. When replacing the parts in the darkened are (▨) and those marked with ⚠, be sure to use the designated parts to ensure safety.
7. This is the standard circuit diagram. The design and contents are subject to change without notice.

(No. 20279)

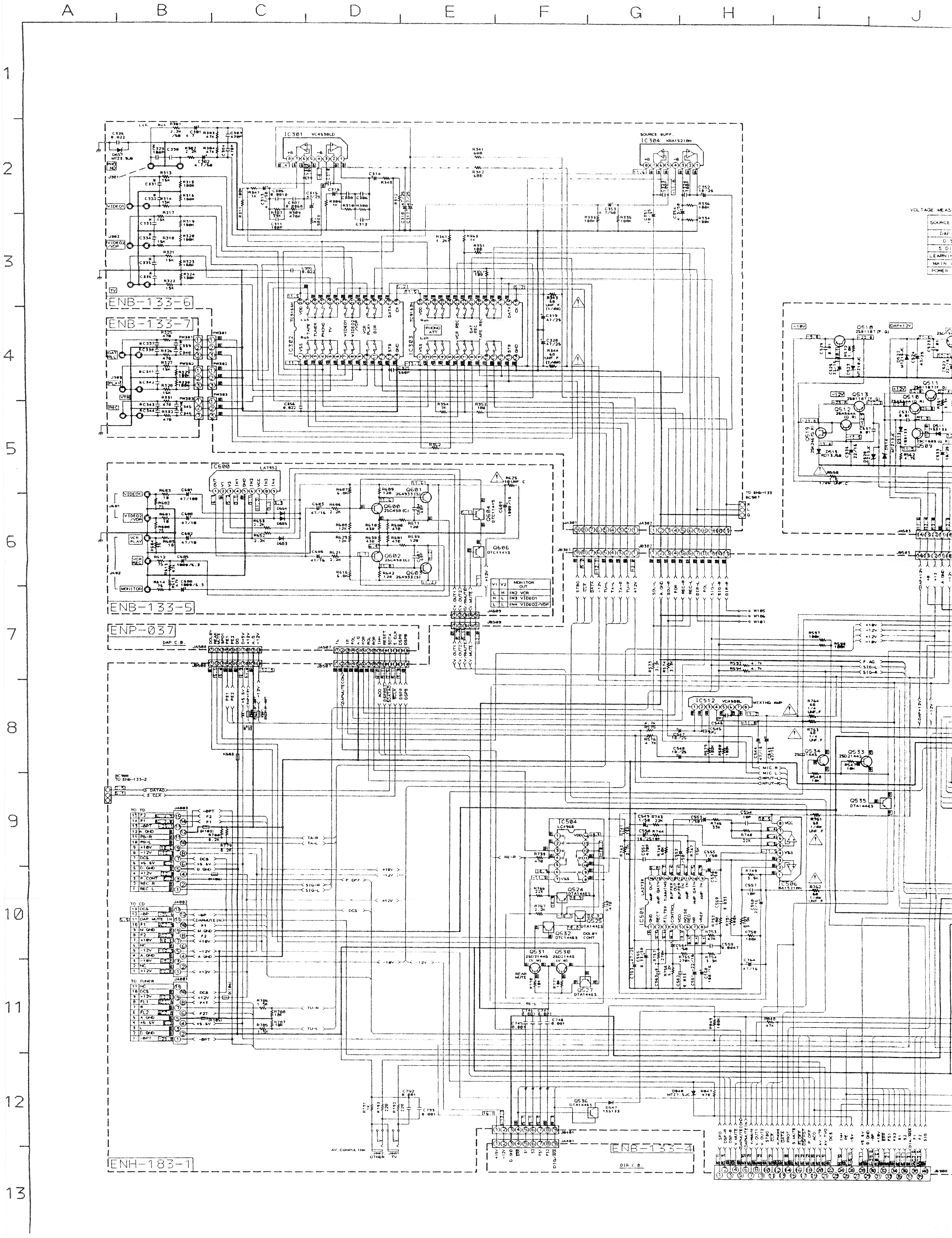
DAP Section


A
B
C
D
E
F
G
H
I
J
K
P651
K654~K658 ENZB101-016
DOLBY
R.MUTE
SPK OUT
P.ENG1
P.ENG2
D.GND
+5V(L)
+12V
A.GND
-12V
K651 ENZB101-007
K653 ENZB101-007
K650 ENZB101-007
K652 ENZB101-007
R684 270
R685 270
C628 10/25
C627 10/25
R686 47K
R687 47K
C632 0.47/50
C631 0.47/50
C651 100/16
IC667 NJM78M05FD
IC666 NJM78M05FD
IC668 NJM78M05FD
IC665 NJM79M05FD
C676 0.022
C674 0.022
C679 100/10
C681 0.1
C680 0.001
C675 0.022
C603 100/10
C678 0.1
L658
C605
C673 0.022
C646 100/10
C648 0.1
C647 0.001
L657
R632 1K
IC660 BA15218N
L655 EQF0601-222
K654 ENFB101-007
L653 EQF0601-222
C687 100/10
C686 0.001
CX650 18MHz
C688 18P
C689 18P
C638 0.1
R689 47K
R688 47K
R691 27K
R690 47K
R693 220
R692 220
C691 4.7/50
C690
D661~664 MTZ4.7JB
D662
D664
D661
D663
IC654
ADC
CS5339-KP
C669 1.5
C668 0.01
C660 0.01
C684 10/25
C694 1.5
C695 1.5
C624 1.5
R696 10
C639 68P
C627 10/25
R695 10K
C685 1.5
AD SCK
AD SDA
AD BCK
AD LRC
IC651 LC83010N
DSP
L654 EQF0601-
C690 0.001
C691 100/10
L511 0.22
D651 1SS133
IC652 MB81464-12
IC653 MB81464-12
L652 EQF0601-222
C617 220/10
C616 0.001
C615 0.1
C620 100/10
C621 0.001
C622 100/10
C619 0.001
CX651 7.2MHz
IC650 MN17581JNR
μCOM
R647 10K
IC659 LH535949
ENP-037
1
2
3
4
5
6
7
8
9
0
1
2
3
4


H
I
J
K
L
M
N
O
P
Q
R
IC666 NJM78M05FD
IC668 NJM78M05FD
IC665 NJM79M05FD
C674 0.022
C679 100/10
C681 0.1
C675 0.022
C603 100/10
C678 0.1
L658
C673 0.022
C646 100/10
C648 0.1
L657
C680 0.001
C605
C647 0.001
R632 1K
R634 1K
R635 1K
R633 1K
R636 100K
R637 100K
R630 180K
R631 180K
L655 EQF0601-222
K654 ENFB101-007
L653 EQF0601-222
C687 100/10
C686 0.001
CX650 18MHz
C688 18P
C689 18P
C638 0.1
C639 68P
C669 1.5
C684 10/25
R696 10
C685 1.5
IC651 LC83010N
DSP
P0
P1
P2
P3
P4
P5
AOTDF1
AOTDF2
DFBCK
DFWCK
RAS
CASS
DREAD
DWRT
Vdd1
OSC1
OSC2
Vss1
FS3840
D0
D1
D2
D3
D4
D5
D6
D7
A0
A1
A2
A3
A4
SRDY
SIAK
SIRQ
SICK
SI
SOAK
SORQ
SOCK
SO
AOWCK
ASO
AOBCK
TEST4
TEST3
TEST2
TEST1
Vss
INH
RES
Vdd2
TEST5
SELC
LRCKI
LRCKO
AS10
AS11
BCK2
BCK1
A8
A7
A6
A5
DATA1
DATA2
B.CK
S.CK
RAS
CAS
READ
WRITE
D.SRDY
D.SCK IN
D.STRQ
D.SCK OUT
D.SDT OUT
D.RES
LRCK
AD LRC
AD SNA
AD BCK
AD SCK
AD SNA
C690 0.001
C691 100/10
C648 0.1
L654 EQF0601-222
IC657 PCM1700U
DAC1
AC (R)
Iout (R)
BPO F (R)
MSB ADJ (R)
SUB F (R)
Vbot
+Vcc
DC
-Vcc
SUB F (L)
MSB ADJ (L)
BPO F (L)
Iout (L)
AC (L)
Iin (R)
Vout (R)
NC
DATA (R)
LE
-Vdd
CLOCK
DATA (L)
+Vdd
Vout (L)
Iin (L)
C698 0.1
C699 0.1
C610 0.1
C611 0.1
C696 0.1
C697 0.1
DTR
LEC
CLK1
R620 820
R618 620
R654 820
C652 0.01
C654 0.0022
R656 820
R657 820
C655 0.0022
R655 820
C653 0.01
R619 820
R617 620
IC661 VC4580L
C659 22/50
C658 22/50
R659 27K
R658 27K
R661 270
R660 270
C657 0.022
C656 0.022
C613 0.1
C614 0.1
R663 270
R662 270
R667 10K
R666 10K
Q653 2SD2144 (VW)
Q652 2SD2144 (VW)
R623 820
R621 18K
C635 10/25
R671 820
C661 0.01
R669 100K
R673 820
C663 0.0022
R668 100K
R672 820
C662 0.0022
C634 10/25
R670 820
C660 0.01
R624 820
R622 18K
IC663 VC4580L
C665 22/25
C664 22/25
R675 27K
R674 27K
R676 390
R677 390
C666 0.022
C667 0.022
R678 180
R679 180
Q658 DTA114YS
R682 10K
R683 10K
Q656 2SD2144 (VW)
Q657 2SD2144 (VW)
DAC2
IC658 µPD6376
4/8SEL
D.G.
NC
D.VDD
A.G.
R.OUT
A.VDD
A.VDD
CLK
SI
LRSEL
LRC
A.G.
L.OUT
L.REF
R.REF
C614 47/10
C613 47/10
C618 0.1
CLK
SI
LRC
CX651 7.2MHz
L652 EQF0601-222
IC652 MB81464-12
IC653 MB81464-12
C617 220/10
C616 0.001
C615 0.1
D6
D7
READ
D5
RAS
A5
Vcc
A3
A1
CAS
D4
WRITE
A6
A4
A7
A2
A0
D2
D3
D1
D0
RESET
D.SDT OUT
INH
D.SCK OUT
SDT IN
SCK IN
D.SCK IN
IC655 SM5818AS1
XT
XT
CKSL
CKO
NC
LRCI
DIN
BCKI
Vss
Vdd
BCKO
WDCO
OMOD2
DOR
DG
OMOD1
C612 0.01
DF2
IC656 SM5807FS
CKD
DGL
DGR
SCSL
LRCO
WDCO
Vcc
C692 1.5
S.CK
LRCK
DATA1
DATA2
B.CK
CLK1
LEC
DTR
CLK
LRC
SI
A014
A013
A012
A011
A010
A09
A08
A07
A06
A05
A04
D MUTE
K665
K666
K667
K668
K670
K669
K654 ENZ8101-016
Q677 DTA144ES
MUTE
NR
GND
S.GND
FRONT R
FRONT L
REAR R
INH
RESET
SDT IN
SCK IN
REC IN
BUSY
K671
K672
K660
K661
K662
K663
K660~K672 ENZ8101-016
P650

Schematic Diagrams

■ Source Select & Power Amplifier Section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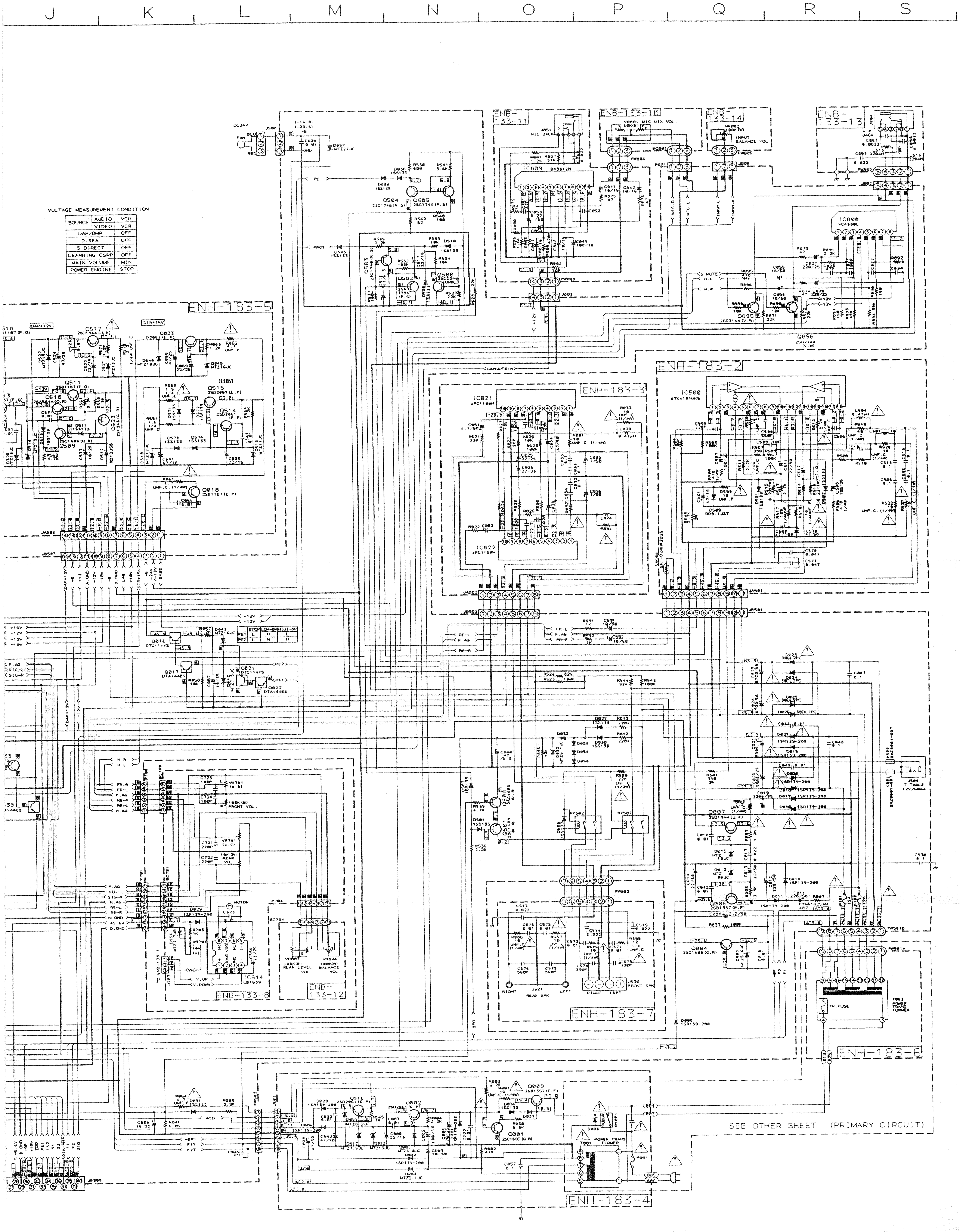
13
IC301 VC4538LD
SOURCE BUFF.
IC304 KRA15210N
IC302 TC9164N
IC303 TC9163N
VIDEO1
VIDEO2/VDP
TV
ENB-133-6
ENB-133-7
DAT PLAY
VTR PLAY
REC
IC600 LA7952
Q600 2SC458(C)
Q601 2SA933(S)
Q602 2SC458(C)
Q603 2SA933(S)
Q604 DTC114YS
Q606 DTC114YS
VIDEO1
VIDEO2/VDP
VCR PLAY
VCR REC
MONITOR
ENB-133-5
V1 V2 MONITOR OUT
L H IN2 VCR
H L IN3 VIDEO1
H H IN4 VIDEO2/VDP
ENP-037
DAP C.B.
TO ENB-133-7
TO TD
TO CD
TO TUNER
IC512 VC4558L MIXING AMP
Q533 2SD2144S
Q534 2SD2144S
Q535 DTA144ES
IC504 LC7966
IC505 LA2770
IC506 BA15218N
Q524 DTA144ES
Q525 DTA144ES
Q532 DTC144ES
Q531 2SD2144S
Q530 2SD2144S
Q527 DTA144ES
REAR MUTE
DOLBY CONT
Q536 DTA144ES
D547 1SS133
D848 MTZJ5.6C
AV COMPULINK
OTHER
TV
ENH-183-1
ENB-133-4
DIR C.B.
VOLTAGE MEAS
SOURCE
DAP
LEARNIN
MAIN
POWER
Q510 2SB1187(F,Q)
Q511 2SB1187(F,Q)
Q512
Q513 2SB1187(F,Q)
Q509
Q519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M
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P
Q
R
S
ENH-183-5
ENB-133-11
ENB-133-10
ENB-133-14
ENB-133-13
ENH-183-3
ENH-183-2
ENB-133-8
ENB-133-12
ENH-183-7
ENH-183-6
ENH-183-4
IC809 BA3312N
IC808
IC021 µPC1188H
IC022 µPC1188H
IC500 STK4191MK5
IC514 LB1639
DC24V
FAN
MIC JACK
VR801 MIC MIX VOL.
INPUT BALANCE VOL
FRONT VOL.
REAR VOL.
REAR LEVEL VOL
BALANCE VOL
MOTOR
REAR SPK
FRONT SPK
RIGHT
LEFT
T.TABLE 1.2V/50mA
POWER TRANS FORMER
TH.FUSE
DAP+12V
DIR+15V

SEE OTHER SHEET (PRIMARY CIRCUIT)

VOLTAGE MEASUREMENT CONDITION

SOURCE	AUDIO	VCR
	VIDEO	VCR
DAP/DMP		OFF
D.SEA		OFF
S.DIRECT		OFF
LEARNING CSRP		OFF
MAIN VOLUME		MIN
POWER ENGINE		STOP

PARTS LIST

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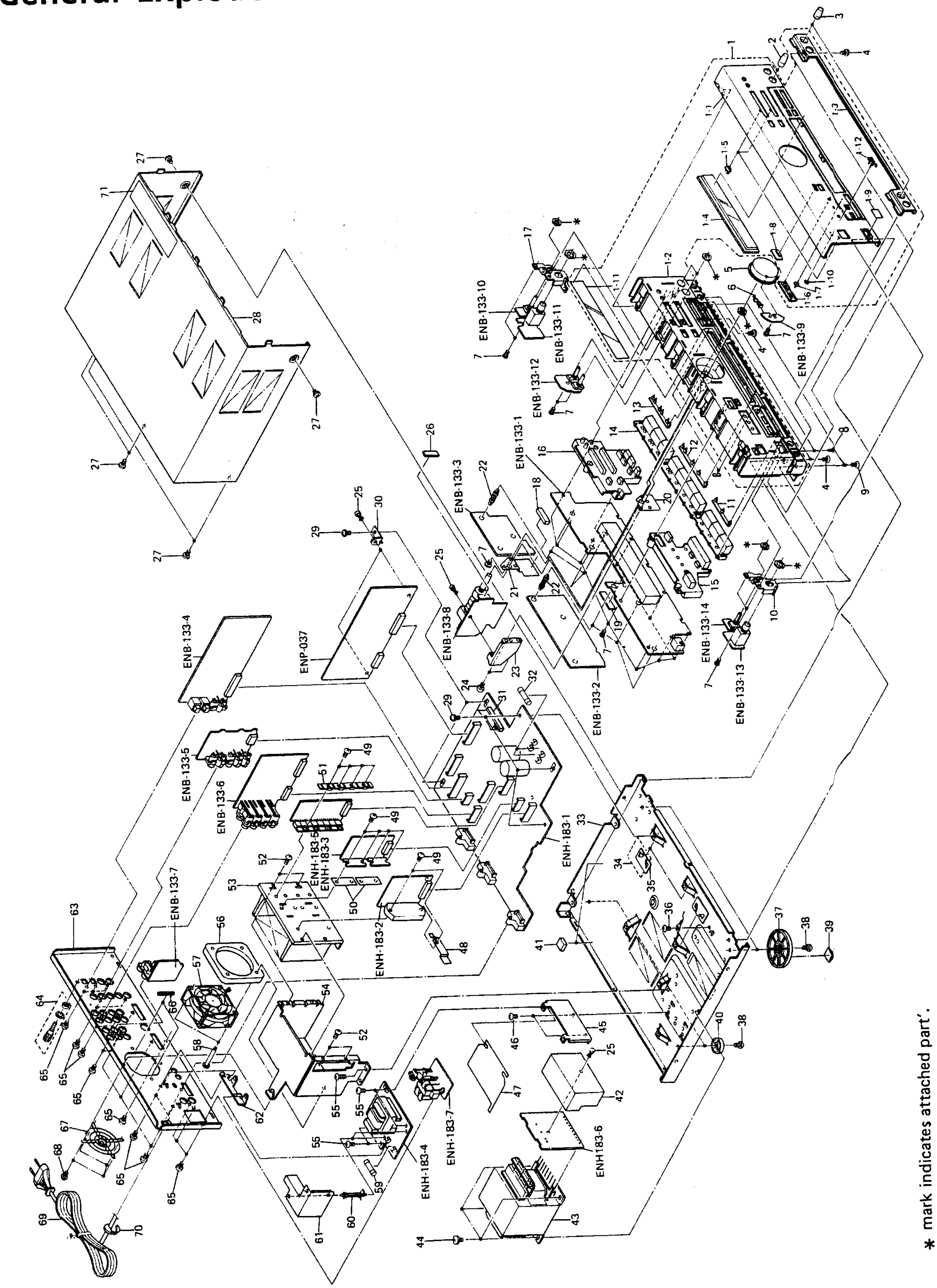
General Exploded View and Parts List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ENB-133-1
ENB-133-2
ENB-133-3
ENB-133-4
ENB-133-5
ENB-133-6
ENB-133-7
ENB-133-8
ENB-133-9
ENB-133-10
ENB-133-11
ENB-133-12
ENB-133-13
ENB-133-14
ENP-037
ENH-183-1
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ENH-183-3
ENH-183-4
ENH-183-5
ENH183-6
ENH-183-7
*

* mark indicates attached part'.

■ Parts List

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-AXE95TNE (S)	Front Panel Ass'y	1		
	1-1	E206935-003	Front Panel	1		
	1-2	E102366-003	Front Base	1		
	1-3	E307181-002	Ornament	1		
	1-4	E307193-003	Window Screen	1		
	1-5	E406300-002	Indicator	3		
	1-6	E406314-001	Indicator	1		
	1-7	E406315-001	Indicator	1		
	1-8	E406316-003	Al Lens	1		
	1-9	E406317-001	Remote Plate	1		
	1-10	E60912-003	Speed Nut	1		
	1-11	E70561-030	FL Screen	1		
	1-12	PQ42561	JVC Mark	1		
	2	E406312-001	Knob	2	BALANCE	
	3	E406313-001	Knob	2	MIC	
	4	SDSG3006M	Screw	5		
	5	E307183-002	Volume Knob	1		
	6	EWS142-002B	Socket Wire	1		
	7	SDSF2608Z	Screw	17		
	8	SPSG2606Z	Screw	2		
	9	SSST3006Z	Screw	2		
	10	E307188-002	Bracket	1		
	11	E307190-002	Indicator	1		
	12	E307191-002	Indicator	1		
	13	E307192-002	Indicator	1		
	14	E206941-003	Push Button	1	SOURCE	
	15	E206937-002	Push Button	1	POWER	
	16	E206939-002	Push Button	1	DAP	
	17	E307188-001	Bracket	1		
	18	E306805-017	Spacer	1		
	19	EXO050010N20S	Spacer	1		
	20	E406582-001	Shield Plate	1		
	21	E406555-001	Shield Bracket	1		
	22	E307112-001	Fastener	6		
	23	E307482-002	Volume Bracket	1		
	24	SBSF3008M	Screw	2		
	25	E48729-008	Plastic Rivet	4		
	26	EXO030007H03S	Spacer	1		
	27	E75440-001	Special Screw	6		
	28	E206945-005	Metal Cover	1		
	29	SBSG3012CC	Screw	6		
	30	E406346-001	Bracket	2		
	31	EWR1YE-35TT	Flat Cable	1	FC900	
⚠	32	QMF51A2-2R0S	Fuse	2	F101 , F102	E , EF , G
⚠		QMF51E2-2R0SBS	Fuse	2	F101 , F102	BS
	33	E102367-003	Chassis Base	1		
	34	E74925-001	Dolby Sheet	1		
	35	E406786-001	Protect Sheet	3		
	36	SBSG3006CC	Screw	1		
	37	E307171-002	Foot	2	Front	
	38	SBSG3008N	Screw	4	for Foot	
	39	E75896-001	Spacer	2	for Foot (Front)	
	40	E47227-023	Foot	2	Rear	
	41	E306805-018	Felt Spacer	2		
	42	E307659-002	Protect Cover	1		
⚠	43	ETP1150-44EA	Power Transformer	1		E , EF , G
⚠		ETP1150-44EABS	Power Transformer	1		BS
	44	E65389-004	Special Screw	4		
	45	E307187-001	Circuit Board Bracket	1		
	46	SBST3006Z	Screw	2		
	47	E307483-002	Protect Cover	1		
	48	E406357-003	Leaf Spring	1		
	49	SBSG3014CC	Screw	10		
	50	E75768-003	Mica Sheet	2	MS021 , MS022	
	51	E406722-001	Leaf Spring	1		
	52	SBSG3008Z	Screw	4		
	53	E307657-001	Heat Sink	1		
	54	E307658-001	Heat Sink Cover	1		
	55	SBSG3008CC	Screw	6		
	56	E406699-003	Spacer	1		
	57	MMF-06C24DL-RA1	Fan	1		
	58	E406737-001	Special Screw	4		
⚠	59	QMF51A2-2R0S	Fuse	1	F001	E , EF , G
⚠		QMF51E2-2R0SBS	Fuse	1	F001	BS
	60	E302321-001	Fastener	2		
	61	E307656-002	Protect Cover	1		
	62	E406721-001	Bracket	1		
	63	E206943-005	Rear Panel	1		E , EF , G
		E206943-006	Rear Panel	1		BS
	64	E70078-003	GND Terminal	1		
	65	E73273-003	Special Screw	18		
	66	EXO060004N30S02	Spacer	2		
	67	E406736-001	Fan Guard	1		
	68	GBSG3008M	Screw	4		
⚠	69	QMP3900-200	Power Cord	1		E , EF
⚠		QMP39A0-200	Power Cord	1		G
⚠		QMP9017-008BS	Power Cord	1		BS
⚠	70	QHS3876-162	Cord Stopper	1		
⚠		QHS3876-162BS	Cord Stopper	1		
	71	E67000-017	Caution Label	1		
	–	E61029-009	Number Label	1		
	–	E70028-001	Approval Label	1		E
	–	E74792-109	FTZ Label	1		G

⚠ Safety Parts

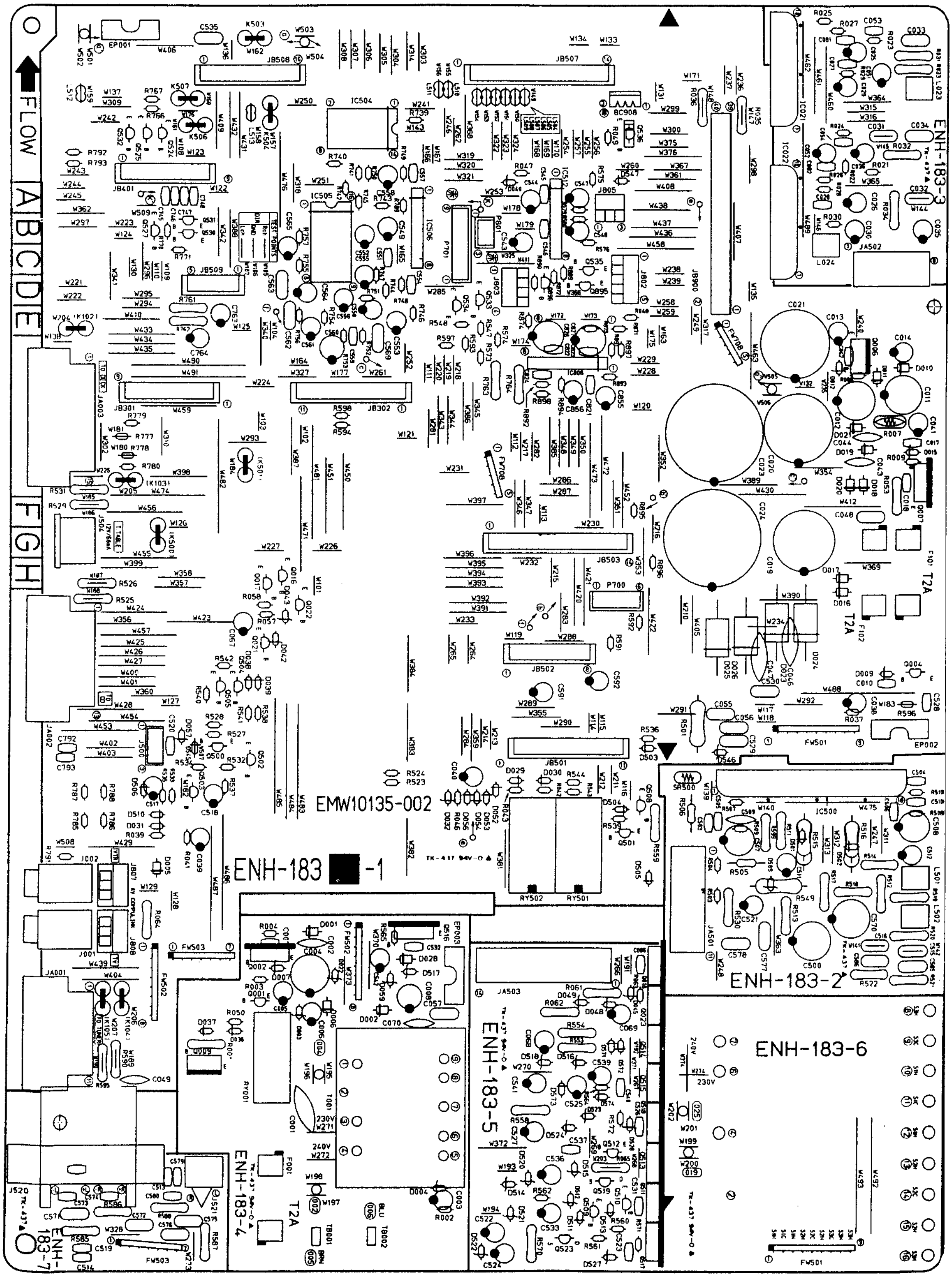
The Marks for Designated Areas

E,EF……………………Continental Europe
G…………………………Germany
BS…………………………the U.K.
No mark indicates all areas.

Printed Circuit Board Ass'y and Parts List

■ENH-183☐ Power Primary & Power Amplifier PC Board Ass'y

Note : ENH-183☐ varies according to the areas employed. See note (1) when placing an order.


FLOW
A
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ENH-183-3
EMW10135-002
ENH-183■-1
ENH-183-2
ENH-183-6
ENH-183-5
ENH-183-4
ENH-183-7
T2A

Note (1)

PC Board Ass'y	Designated Areas
ENH-183 A	Continental Europe
ENH-183 B BS	the U.K.
ENH-183 C	Germany

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q001	2SC1685(Q,R)	SILICON MATSUSHITA	
	Q002	2SD2061(E,F)	SILICON ROHM	
	Q004	2SC1685(Q,R)	SILICON MATSUSHITA	
	Q006	2SB1357(E,F)	SILICON ROHM	
	Q007	2SD1944(J,K)	SILICON ROHM	
	Q009	2SB1357(E,F)	SILICON ROHM	
	Q016	DTC114YS	SILICON ROHM	
	Q017	DTA144ES	SILICON ROHM	
	Q018	2SB1187(E,F)	SILICON ROHM	
	Q021	DTC114YS	SILICON ROHM	
	Q022	DTA144ES	SILICON ROHM	
	Q023	2SD2061(E,F)	SILICON ROHM	
	Q500	2SC2240(GR,BL)	SILICON TOSHIBA	
	Q501	2SC1685(Q,R)	SILICON MATSUSHITA	
	Q502	2SA733A(P,Q)	SILICON NEC	
	Q503	2SC1740S(R,S)	SILICON ROHM	
	Q504	2SC1740(R,S)	SILICON ROHM	
	Q505	2SC1740(R,S)	SILICON ROHM	
	Q508	2SC1685(Q,R)	SILICON MATSUSHITA	
	Q509	2SC1685(Q,R)	SILICON MATSUSHITA	
	Q510	2SA564A(Q,R)	SILICON MATSUSHITA	
	Q511	2SB1187(F,G)	SILICON ROHM	
	Q512	2SA564A(Q,R)	SILICON MATSUSHITA	
	Q513	2SB1187(F,G)	SILICON ROHM	
	Q514	2SD2061(E,F)	SILICON ROHM	
	Q515	2SD2061(E,F)	SILICON ROHM	
	Q516	2SD2061(E,F)	SILICON ROHM	
	Q517	2SD1944(J,K)	SILICON ROHM	
	Q518	2SB1187(F,G)	SILICON ROHM	
	Q519	2SK246(GR)	F.E.T TOSHIBA	
	Q523	2SK246(GR)	F.E.T TOSHIBA	
	Q524	DTA144ES	SILICON ROHM	
	Q525	DTA144ES	SILICON ROHM	
	Q527	DTA144ES	SILICON ROHM	
	Q530	2SD2144S(VW)	SILICON ROHM	
	Q531	2SD2144S(VW)	SILICON ROHM	
	Q532	DTC144ES	SILICON ROHM	
	Q533	2SD2144S(VW)	SILICON ROHM	
	Q534	2SD2144S(VW)	SILICON ROHM	
	Q535	DTA144ES	SILICON ROHM	
	Q536	DTA144ES	SILICON ROHM	
	Q895	2SD2144S(VW)	SILICON ROHM	
	Q896	2SD2144S(VW)	SILICON ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC021	UPC1188H	I.C. NEC	
	IC022	UPC1188H	I.C. NEC	
	IC500	STK4191MK5	I.C. SANYO	
	IC504	LC4966	I.C. SANYO	
	IC505	LA2730	I.C. SANYO	
	IC506	BA15218N	I.C. ROHM	
	IC512	XRA15218N	I.C. EXAR JAPAN	
	IC808	XRA15218N	I.C. EXAR JAPAN	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D001	1SR139-200	SILICON ROHM	
	D002	1SR139-200	SILICON ROHM	
	D003	MTZ12JC	ZENER ROHM	
	D004	MTZ5.1JC	ZENER ROHM	
	D005	1SR139-200	SILICON ROHM	
	D006	1SR139-200	SILICON ROHM	
	D007	MTZ6.8JC	ZENER ROHM	
	D009	MTZ5.6JC	ZENER ROHM	
	D010	1SR139-200	SILICON ROHM	
	D011	1SR139-200	SILICON ROHM	
	D012	MTZ30JC	ZENER ROHM	
	D015	MTZ13JC	ZENER ROHM	
	D016	1SR139-200	SILICON ROHM	
	D017	1SR139-200	SILICON ROHM	
	D018	1SR139-200	SILICON ROHM	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D019	1SR139-200	SILICON ROHM	
	D020	1SR139-200	SILICON ROHM	
	D021	1SR139-200	SILICON ROHM	
	D022	MTZ13JC	ZENER ROHM	
⚠	D023	30DL2FC	SILICON NIHONINTER	
⚠	D024	30DL2FC	SILICON NIHONINTER	
⚠	D025	30DL2FC	SILICON NIHONINTER	
⚠	D026	30DL2FC	SILICON NIHONINTER	
	D028	1SR139-200	SILICON ROHM	
	D029	1SS133	SILICON ROHM	
	D030	1SS133	SILICON ROHM	
	D031	1SS133	SILICON ROHM	
	D032	MTZ5.1JC	ZENER ROHM	
	D036	1SS133	SILICON ROHM	
	D037	1SS133	SILICON ROHM	
	D038	1SS133	SILICON ROHM	
	D039	1SS133	SILICON ROHM	
	D040	MTZ7.5JC	ZENER ROHM	
	D042	MTZ7.5JC	ZENER ROHM	
	D043	MTZ16JC	ZENER ROHM	
	D045	MTZ16JC	ZENER ROHM	
	D048	MTZ18JC	ZENER ROHM	
	D052	1SS133	SILICON ROHM	
	D053	1SS133	SILICON ROHM	
	D054	1SS133	SILICON ROHM	
	D056	1SS133	SILICON ROHM	
	D057	MTZ27JC	ZENER ROHM	
	D059	MTZ8.2JC	ZENER ROHM	
	D501	1SS133	SILICON ROHM	
	D502	1SS133	SILICON ROHM	
	D503	1SS133	SILICON ROHM	
	D504	1SS133	SILICON ROHM	
	D505	1SS133	SILICON ROHM	
	D506	1SS133	SILICON ROHM	
	D509	RD9.1JSB3	ZENER NEC	
	D510	1SS133	SILICON ROHM	
	D511	1SS133	SILICON ROHM	
	D512	RD12JSB3	ZENER NEC	
	D513	1SS133	SILICON ROHM	
	D514	MTZ13JC	ZENER ROHM	
	D515	RD13JSB3	ZENER NEC	
	D516	MTZ11JC	ZENER ROHM	
	D517	MTZ7.5JC	ZENER ROHM	
	D518	MTZ12JC	ZENER ROHM	
	D520	MTZ13JC	ZENER ROHM	
	D521	MTZ12JC	ZENER ROHM	
	D522	MTZ15JC	ZENER ROHM	
	D523	MTZ10JC	ZENER ROHM	
	D545	1SS133	SILICON ROHM	
	D547	1SS133	SILICON ROHM	
	D571	1SS133	SILICON ROHM	
	D572	1SS133	SILICON ROHM	
	D573	1SS133	SILICON ROHM	
	D574	1SS133	SILICON ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	C001	QCZ9050-472A	4700PF 400V CERAMIC	A
⚠	C001	QCZ9050-472ABS	4700PF 400V CERAMIC	BBS
⚠	C001	QCZ9050-472A	4700PF 400V CERAMIC	C
	C002	QCF21HP-103	0.01MF 50V CERAMIC	
	C003	QETB1HM-106	10MF 50V ELECTRO	
	C004	QETB1EM-477	470MF 25V ELECTRO	
	C005	QETB1AM-107	100MF 10V ELECTRO	
	C006	QER51CM-226	22MF 16V ELECTRO	
	C007	QCVB1CM-103	0.01MF 16V CERAMIC	
	C008	QETB1HM-476	47MF 50V ELECTRO	
	C010	QCVB1CM-103	0.01MF 16V CERAMIC	
	C011	QETB1HM-227	220MF 50V ELECTRO	
	C012	QETB1HM-227	220MF 50V ELECTRO	
	C013	QETB1HM-226	22MF 50V ELECTRO	
	C014	QETB1HM-226	22MF 50V ELECTRO	
	C017	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C018	QCVB1CM-103	0.01MF 16V CERAMIC	
	C019	QETB1VM-228N	2200MF 35V ELECTRO	
	C020	QETB1VM-338	3300MF 35V ELECTRO	
	C021	QETB1EM-338	3300MF 25V ELECTRO	
	C023	EEW5608-878E	8700MF 56V ELECTRO	
	C024	EEW5608-878E	8700MF 56V ELECTRO	
	C025	QETB1EM-226	22MF 25V ELECTRO	
	C026	QETB1EM-226	22MF 25V ELECTRO	
	C027	QCSB1HJ-470	47PF 50V CERAMIC	
	C028	QCSB1HJ-470	47PF 50V CERAMIC	
	C029	QETB1HM-476	47MF 50V ELECTRO	
	C030	QETB1HM-476	47MF 50V ELECTRO	
	C031	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C032	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C033	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C034	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C035	QEK51HM-105G	1MF 50V ELECTRO	
	C036	QEK51HM-105G	1MF 50V ELECTRO	
	C038	QETB1HM-225	2.2MF 50V ELECTRO	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C039	QER51EM-106	10MF 25V ELECTRO	
	C040	QER50JM-476	47MF 6.3V ELECTRO	
	C042	QCVB1CM-103	0.01MF 16V CERAMIC	
	C043	QCF21HP-103	0.01MF 50V CERAMIC	
	C044	QCF21HP-103	0.01MF 50V CERAMIC	
	C047	QCE22HP-103	0.01MF 500V CERAMIC	
	C048	QFN81HJ-104	0.1MF 50V MYLAR	
	C051	QER61HM-475	4.7MF 50V ELECTRO	
	C052	QER61HM-475	4.7MF 50V ELECTRO	
	C053	QCBB1HK-271	270PF 50V CERAMIC	
	C054	QCBB1HK-271	270PF 50V CERAMIC	
	C057	QFV81HJ-104	0.1MF 50V T.FILM	
	C066	QCVB1CM-103	0.01MF 16V CERAMIC	
	C067	QEK51HM-106	10MF 50V ELECTRO	
	C068	QETB1EM-476	47MF 25V ELECTRO	
	C069	QETB1EM-226	22MF 25V ELECTRO	
	C503	QCBB1HK-101	100PF 50V CERAMIC	
	C504	QCBB1HK-101	100PF 50V CERAMIC	
	C505	QCBB1HK-820	82PF 50V CERAMIC	
	C506	QCBB1HK-820	82PF 50V CERAMIC	
	C507	EEZ2505-107	100MF 25V ELECTRO	
	C508	EEZ2505-107	100MF 25V ELECTRO	
	C509	QCSB1HK-4R7	4.7PF 50V CERAMIC	
	C510	QCSB1HK-4R7	4.7PF 50V CERAMIC	
	C511	QETB1HM-226	22MF 50V ELECTRO	
	C512	QETB1HM-226	22MF 50V ELECTRO	
	C515	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C516	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C517	QER51CM-226	22MF 16V ELECTRO	
	C518	QER50JM-476	47MF 6.3V ELECTRO	
	C520	QCVB1CM-103	0.01MF 16V CERAMIC	
	C521	QETB1CM-476	47MF 16V ELECTRO	
	C522	QETB1CM-226	22MF 16V ELECTRO	
	C523	QCVB1CM-103	0.01MF 16V CERAMIC	
	C524	QETB1EM-476	47MF 25V ELECTRO	
	C525	QETB1CM-226	22MF 16V ELECTRO	
	C526	QCVB1CM-103	0.01MF 16V CERAMIC	
	C530	QFV81HJ-104	0.1MF 50V T.FILM	
	C531	QCVB1CM-103	0.01MF 16V CERAMIC	
	C532	QCVB1CM-103	0.01MF 16V CERAMIC	
	C533	QETB1EM-106	10MF 25V ELECTRO	
	C536	QETB1CM-226	22MF 16V ELECTRO	
	C537	QCVB1CM-103	0.01MF 16V CERAMIC	
	C539	QETB1CM-226	22MF 16V ELECTRO	
	C540	QCVB1CM-103	0.01MF 16V CERAMIC	
	C541	QETB1CM-476	47MF 16V ELECTRO	
	C542	QETB1AM-476	47MF 10V ELECTRO	
	C543	QER51CM-476	47MF 16V ELECTRO	
	C544	QER51CM-476	47MF 16V ELECTRO	
	C547	QEK51EM-106	10MF 25V ELECTRO	
	C548	QEK51EM-106	10MF 25V ELECTRO	
	C549	QETB1HM-105	1MF 50V ELECTRO	
	C550	QETB1EM-106	10MF 25V ELECTRO	
	C551	QCBB1HK-471	470PF 50V CERAMIC	
	C552	QETB1HM-105	1MF 50V ELECTRO	
	C553	QETB1HM-105	1MF 50V ELECTRO	
	C554	QCSB1HJ-100	10PF 50V CERAMIC	
	C555	QETB1HM-105	1MF 50V ELECTRO	
	C556	QETB1HM-105	1MF 50V ELECTRO	
	C557	QCSB1HJ-100	10PF 50V CERAMIC	
	C558	QEK51CM-226	22MF 16V ELECTRO	
	C559	QCXB1CM-472	4700PF 16V CERAMIC	
	C560	QETB1CM-107	100MF 16V ELECTRO	
	C561	QETB1CM-226	22MF 16V ELECTRO	
	C562	QFV81HJ-333	0.033MF 50V T.FILM	
	C563	QFV81HJ-104	0.1MF 50V T.FILM	
	C564	QETB1HM-105	1MF 50V ELECTRO	
	C565	QEB51HM-334	0.33MF 50V LLC ELECTRO	
	C569	QFV81HJ-333	0.033MF 50V T.FILM	
	C570	QETB1HM-476	47MF 50V ELECTRO	
	C571	QFN81HJ-103	0.01MF 50V MYLAR	
	C572	QFN81HJ-103	0.01MF 50V MYLAR	
	C573	QCBB1HK-221	220PF 50V CERAMIC	
	C574	QCBB1HK-221	220PF 50V CERAMIC	
	C575	QFN81HJ-103	0.01MF 50V MYLAR	
	C576	QFN81HJ-103	0.01MF 50V MYLAR	
	C577	QFV81HJ-473	0.047MF 50V T.FILM	
	C578	QFV81HJ-473	0.047MF 50V T.FILM	
	C579	QCBB1HK-221	220PF 50V CERAMIC	
	C580	QCBB1HK-221	220PF 50V CERAMIC	
	C585	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C586	QFVB1HJ-104N	0.1MF 50V T.FILM	
	C591	EEZ5009-106	10MF 50V ELECTRO	
	C592	EEZ5009-106	10MF 50V ELECTRO	
	C745	QCGB1HK-102	1000PF 50V CERAMIC	
	C746	QCGB1HK-102	1000PF 50V CERAMIC	
	C747	QCGB1HK-102	1000PF 50V CERAMIC	
	C748	QCGB1HK-102	1000PF 50V CERAMIC	
	C763	QETB1EM-476	47MF 25V ELECTRO	
	C764	QER51CM-476	47MF 16V ELECTRO	
	C792	QCGB1HK-102	1000PF 50V CERAMIC	
	C793	QCGB1HK-102	1000PF 50V CERAMIC	
	C821	QCBB1HK-101	100PF 50V CERAMIC	
	C822	QCBB1HK-101	100PF 50V CERAMIC	
	C823	QCSB1HJ-470	47PF 50V CERAMIC	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C824	QCSB1HJ-470	47PF 50V CERAMIC	
	C827	QETB1EM-227	220MF 25V ELECTRO	
	C828	QETB1EM-227	220MF 25V ELECTRO	
	C855	QETB1HM-106	10MF 50V ELECTRO	
	C856	QETB1HM-106	10MF 50V ELECTRO	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	R001	QRD14CJ-100S	10 1/4W UNF.CARBON	
	R002	QRD167J-473	47K 1/6W CARBON	
	R003	QRD167J-222	2.2K 1/6W CARBON	
	R004	QRD167J-222	2.2K 1/6W CARBON	
⚠	R007	PTH61G25AR4R7M	4.7 POSISTOR	
	R008	QRD167J-332	3.3K 1/6W CARBON	
	R009	QRD167J-122	1.2K 1/6W CARBON	
	R021	QRD167J-221	220 1/6W CARBON	
	R022	QRD167J-221	220 1/6W CARBON	
	R023	QRD167J-103	10K 1/6W CARBON	
	R024	QRD167J-103	10K 1/6W CARBON	
	R025	QRD167J-103	10K 1/6W CARBON	
	R026	QRD167J-103	10K 1/6W CARBON	
	R027	QRD167J-201	200 1/6W CARBON	
	R028	QRD167J-201	200 1/6W CARBON	
	R029	QRD167J-104	100K 1/6W CARBON	
	R030	QRD167J-104	100K 1/6W CARBON	
⚠	R031	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R032	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R033	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R034	QRD14CJ-100S	10 1/4W UNF.CARBON	
	R037	QRD167J-104	100K 1/6W CARBON	
	R039	QRD167J-332	3.3K 1/6W CARBON	
	R041	QRD167J-682	6.8K 1/6W CARBON	
	R042	QRD167J-224	220K 1/6W CARBON	
	R043	QRD167J-224	220K 1/6W CARBON	
	R046	QRD167J-103	10K 1/6W CARBON	
	R047	QRD167J-471	470 1/6W CARBON	
	R048	QRD167J-473	47K 1/6W CARBON	
	R049	QRD167J-104	100K 1/6W CARBON	
	R050	QRD167J-682	6.8K 1/6W CARBON	
⚠	R053	QRD14CJ-2R2S	2.2 1/4W UNF.CARBON	
	R057	QRD167J-222	2.2K 1/6W CARBON	
	R058	QRD167J-103	10K 1/6W CARBON	
⚠	R061	QRD14CJ-4R7S	4.7 1/4W UNF.CARBON	
⚠	R062	QRZ0077-4R7	4.7 1/4W FUSIBLE	
	R063	QRD167J-122	1.2K 1/6W CARBON	
⚠	R064	QRZ0077-4R7	4.7 1/4W FUSIBLE	
⚠	R501	QRG022J-391A	390 2W O.M.FILM	
	R503	QRD167J-104	100K 1/6W CARBON	
	R504	QRD167J-104	100K 1/6W CARBON	
	R505	ERD003J-471	470 1/4W CARBON	
	R506	ERD003J-471	470 1/4W CARBON	
	R507	QRD167J-391	390 1/6W CARBON	
	R508	QRD167J-391	390 1/6W CARBON	
	R509	QRD167J-104	100K 1/6W CARBON	
	R510	QRD167J-104	100K 1/6W CARBON	
⚠	R511	QRD14CJ-332S	3.3K 1/4W UNF.CARBON	
⚠	R512	QRD14CJ-332S	3.3K 1/4W UNF.CARBON	
⚠	R513	QRD14CJ-332S	3.3K 1/4W UNF.CARBON	
⚠	R514	QRD14CJ-332S	3.3K 1/4W UNF.CARBON	
⚠	R515	QRX012J-R22AM	0.22 1W M.FILM	
⚠	R516	QRX012J-R22AM	0.22 1W M.FILM	
⚠	R517	QRD14CJ-101S	100 1/4W UNF.CARBON	
⚠	R518	QRZ0077-100	10 1/4W FUSIBLE	
⚠	R519	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R520	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R521	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R522	QRD14CJ-100S	10 1/4W UNF.CARBON	
	R523	QRD167J-104	100K 1/6W CARBON	
	R524	QRD167J-823	82K 1/6W CARBON	
	R527	QRD167J-223	22K 1/6W CARBON	
	R528	QRD167J-223	22K 1/6W CARBON	
⚠	R530	QRD14CJ-100S	10 1/4W UNF.CARBON	
	R532	QRD167J-104	100K 1/6W CARBON	
	R533	QRD167J-103	10K 1/6W CARBON	
	R534	QRD167J-332	3.3K 1/6W CARBON	
	R535	QRD167J-222	2.2K 1/6W CARBON	
	R536	QRD167J-222	2.2K 1/6W CARBON	
	R537	QRD167J-104	100K 1/6W CARBON	
	R538	QRD167J-681	680 1/6W CARBON	
	R539	QRD167J-472	4.7K 1/6W CARBON	
	R540	QRD167J-181	180 1/6W CARBON	
	R541	QRD167J-362	3.6K 1/6W CARBON	
	R542	QRD167J-820	82 1/6W CARBON	
	R543	QRD167J-104	100K 1/6W CARBON	
	R544	QRD167J-823	82K 1/6W CARBON	
	R547	QRD167J-103	10K 1/6W CARBON	
	R548	QRD167J-103	10K 1/6W CARBON	
⚠	R549	QRG022J-272A	2.7K 2W O.M.FILM	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
⚠	R553	QRD14CJ-1R5S	1.5 1/4W UNF.CARBON	
⚠	R554	QRD14CJ-1R5S	1.5 1/4W UNF.CARBON	
⚠	R558	QRD14CJ-1R5S	1.5 1/4W UNF.CARBON	
⚠	R559	QRD12CJ-221S	220 1/2W R.NETWORK	
	R560	QRD167J-332	3.3K 1/6W CARBON	
	R561	QRD167J-332	3.3K 1/6W CARBON	
	R562	QRD167J-472	4.7K 1/6W CARBON	
	R564	QRD167J-222	2.2K 1/6W CARBON	
	R565	QRD167J-102	1K 1/6W CARBON	
⚠	R570	QRD14CJ-2R2S	2.2 1/4W UNF.CARBON	
	R571	QRD167J-122	1.2K 1/6W CARBON	
	R572	QRD167J-202	2K 1/6W CARBON	
	R573	QRD167J-332	3.3K 1/6W CARBON	
	R574	QRD167J-332	3.3K 1/6W CARBON	
	R575	QRD167J-472	4.7K 1/6W CARBON	
	R576	QRD167J-472	4.7K 1/6W CARBON	
	R579	QRD167J-104	100K 1/6W CARBON	
	R580	QRD167J-104	100K 1/6W CARBON	
⚠	R585	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R586	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R587	QRD14CJ-100S	10 1/4W UNF.CARBON	
⚠	R588	QRD14CJ-100S	10 1/4W UNF.CARBON	
	R591	QRD167J-102	1K 1/6W CARBON	
	R592	QRD167J-102	1K 1/6W CARBON	
	R593	QRD167J-472	4.7K 1/6W CARBON	
	R594	QRD167J-472	4.7K 1/6W CARBON	
	R597	QRD167J-104	100K 1/6W CARBON	
	R598	QRD167J-104	100K 1/6W CARBON	
⚠	R599	QRD14CJ-100S	10 1/4W UNF.CARBON	
	R739	QRD167J-471	470 1/6W CARBON	
	R740	QRD167J-471	470 1/6W CARBON	
	R741	QRD167J-153	15K 1/6W CARBON	
	R742	QRD167J-272	2.7K 1/6W CARBON	
	R743	QRD167J-223	22K 1/6W CARBON	
	R744	QRD167J-103	10K 1/6W CARBON	
	R745	QRD167J-683	68K 1/6W CARBON	
	R746	QRD167J-333	33K 1/6W CARBON	
	R747	QRD167J-153	15K 1/6W CARBON	
	R748	QRD167J-223	22K 1/6W CARBON	
	R749	QRD167J-392	3.9K 1/6W CARBON	
	R750	QRD167J-104	100K 1/6W CARBON	
	R751	QRD167J-104	100K 1/6W CARBON	
	R752	QRD167J-181	180 1/6W CARBON	
	R753	QRD167J-473	47K 1/6W CARBON	
	R754	QRD167J-332	3.3K 1/6W CARBON	
	R755	QRD167J-274	270K 1/6W CARBON	
	R756	QRD167J-622	6.2K 1/6W CARBON	
	R757	QRD167J-274	270K 1/6W CARBON	
⚠	R761	QRZ0077-680	68 1/4W FUSIBLE	
⚠	R762	QRZ0077-680	68 1/4W FUSIBLE	
⚠	R763	QRZ0077-680	68 1/4W FUSIBLE	
⚠	R764	QRZ0077-680	68 1/4W FUSIBLE	
	R766	QRD167J-223	22K 1/6W CARBON	
	R767	QRD167J-222	2.2K 1/6W CARBON	
	R770	QRD167J-103	10K 1/6W CARBON	
	R771	QRD167J-103	10K 1/6W CARBON	
	R779	QRD167J-562	5.6K 1/6W CARBON	
	R780	QRD167J-562	5.6K 1/6W CARBON	
	R785	QRD167J-152	1.5K 1/6W CARBON	
	R786	QRD167J-152	1.5K 1/6W CARBON	
	R787	QRD167J-103	10K 1/6W CARBON	
	R788	QRD167J-103	10K 1/6W CARBON	
	R789	QRD167J-392	3.9K 1/6W CARBON	
	R791	QRD167J-102	1K 1/6W CARBON	
	R792	QRD167J-221	220 1/6W CARBON	
	R793	QRD167J-221	220 1/6W CARBON	
	R871	QRD167J-223	22K 1/6W CARBON	
	R872	QRD167J-223	22K 1/6W CARBON	
	R873	QRD167J-470	47 1/6W CARBON	
	R874	QRD167J-470	47 1/6W CARBON	
	R889	QRD167J-103	10K 1/6W CARBON	
	R890	QRD167J-103	10K 1/6W CARBON	
	R891	QRD167J-222	2.2K 1/6W CARBON	
	R892	QRD167J-222	2.2K 1/6W CARBON	
	R893	QRD167J-393	39K 1/6W CARBON	
	R894	QRD167J-393	39K 1/6W CARBON	
	R895	QRD167J-471	470 1/6W CARBON	
	R896	QRD167J-471	470 1/6W CARBON	
	R897	QRD167J-151	150 1/6W CARBON	
	R898	QRD167J-151	150 1/6W CARBON	

⚠ : SAFETY PARTS

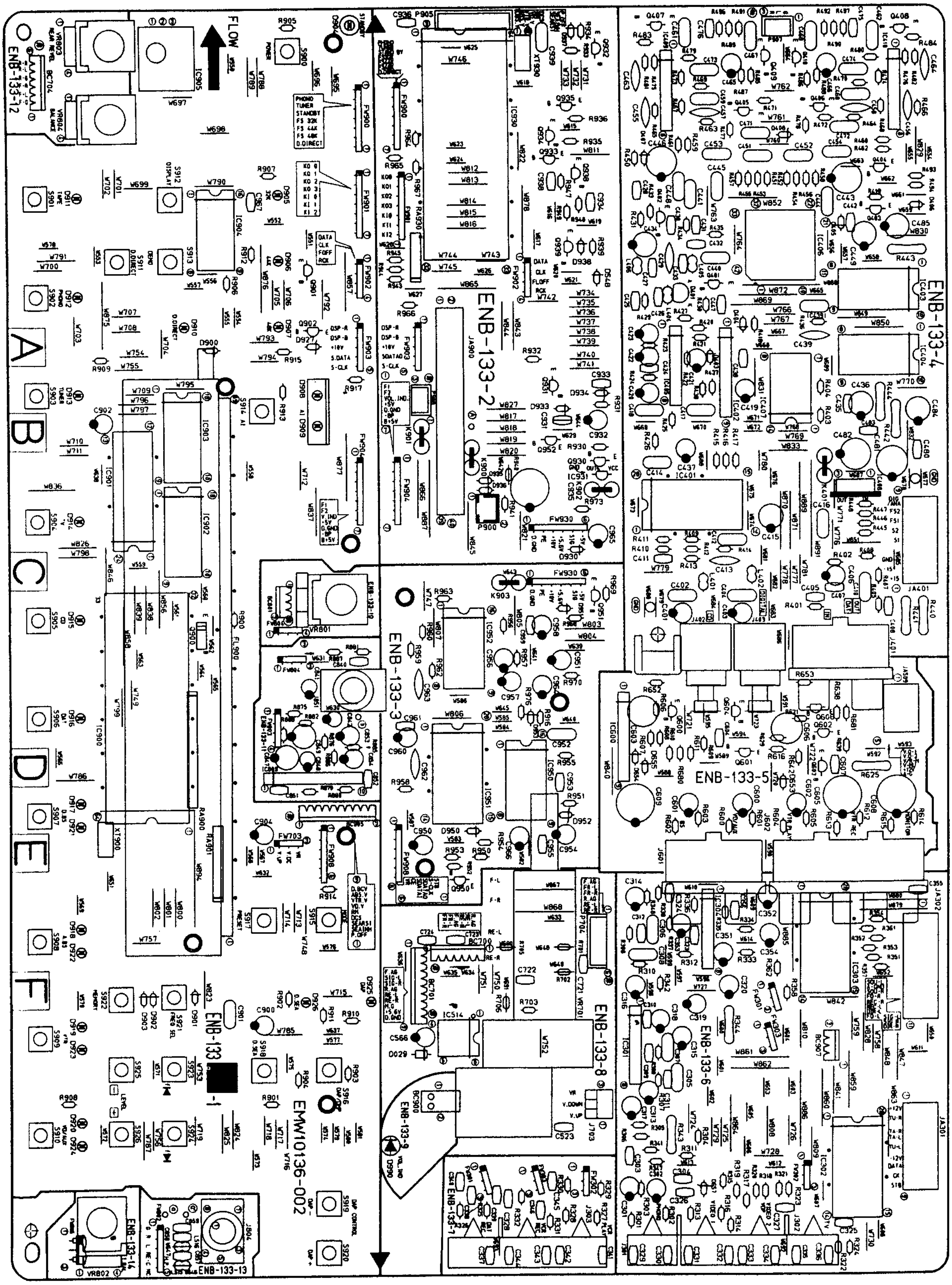
Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		E33754-001	TIE BAND	
		EMW10135-002	CIRCUIT BOARD	A
		EMW10135-002BS	CIRCUIT BOARD	BBS
		EMW10135-002	CIRCUIT BOARD	C
	J001	QMS3L10-0A0	MINI JACK(AV COMPULINK TV)	
	J002	QMS3L10-0A0	MINI JACK(AV COMPULINK VTR)	
	J500	EMV5111-003	PLUG ASSY(3PIN)	
	J504	QMA1221-009	DC JACK(T.TABLE)	
	J520	EMB90TV-402A	SPEAKER TERMINAL	
	J521	EMN00TV-201A	2P PIN JACK	
	J802	EMV7122-005	CONNECTOR(5PIN)	
	J803	EMV7122-004	CONNECTOR(4PIN)	
	J805	EMV7122-103	CONNECTOR(3PIN)	
	J807	VMC0107-003	CONNECT TERMINAL	
	J808	VMC0107-003	CONNECT TERMINAL	
	K500	ENZ8101-007	INDUCTOR	
	K503	ENZ8101-007	INDUCTOR	
	K506	ENZ8101-007	INDUCTOR	
	K507	ENZ8101-007	INDUCTOR	
	L023	EQL0001-R45	INDUCTOR	
	L024	EQL0001-R45	INDUCTOR	
	L501	EQL0001-R45	INDUCTOR	
	L502	EQL0001-R45	INDUCTOR	
	L513	EQL4004-R22	INDUCTOR	
	P700	EMV5109-006A	PLUG ASSY(6PIN)	
	P701	EMV5109-009A	PLUG ASSY(9PIN)	
	P801	EMV5109-003A	PLUG ASSY(3PIN)	
⚠	T001	ETP1000-48EB	POWER TRANSFORMER	A
⚠	T001	ETP1000-48EBBS	POWER TRANSFORMER	BBS
⚠	T001	ETP1000-48EB	POWER TRANSFORMER	C
	BC908	EWS293-0136	SOCKET WIRE(3PIN)	
	EP002	E70859-001	EARTH PLATE	
	EP003	E70859-001	EARTH PLATE	
	FT001	EMG7331-002	FUSE CLIP	
	FT002	EMG7331-002U	FUSE CLIP	
	FT003	EMG7331-002	FUSE CLIP	
	FT004	EMG7331-002	FUSE CLIP	
	FT005	EMG7331-002U	FUSE CLIP	
	FT006	EMG7331-002U	FUSE CLIP	
	FW501	EWR39E-20SST	FLAT WIRE(9PIN)	
	FW502	EWR38E-13SST	FLAT WIRE(8PIN)	
	FW503	EWR37E-20SST	FLAT WIRE(7PIN)	
	FW708	EWR35B-13SST	FLAT WIRE(5PIN)	
	JA001	EMV7127-011	CONNECTOR(11PIN)	
	JA002	EMV7127-013	CONNECTOR(13PIN)	
	JA003	EMV7127-015	CONNECTOR(15PIN)	
	JA501	EMV7125-011R	CONNECTOR(11PIN)	
	JA502	EMV7125-008R	CONNECTOR(8PIN)	
	JA503	EMV7125-014R	CONNECTOR(14PIN)	
	JB301	EMV5125-009	PLUG ASSY(9PIN)	
	JB302	EMV5125-011	PLUG ASSY(11PIN)	
	JB401	EMV5125-009	PLUG ASSY(9PIN)	
	JB501	EMV5125-011	PLUG ASSY(11PIN)	
	JB502	EMV5125-008	PLUG ASSY(8PIN)	
	JB503	EMV5125-014	PLUG ASSY(14PIN)	
	JB507	EMV5125-014	PLUG ASSY(14PIN)	
	JB508	EMV5125-010	PLUG ASSY(10PIN)	
	JB509	EMV5125-005	PLUG ASSY(5PIN)	
	JB900	EMV7123-040	CONNECTOR(40PIN)	
	RY001	ESK1D12-118J1	RELAY	A
	RY001	ESK1D12-118J1BS	RELAY	BBS
	RY001	ESK1D12-118J1	RELAY	C
	RY501	ESK7D24-2120	RELAY	
	RY502	ESK7D24-2120	RELAY	
	SR500	ERT-D2WHK202S	NEGATIVE THERMISTOR	
	TB001	E65508-002	TAB	
	TB002	E65508-002	TAB	

⚠ : SAFETY PARTS

■ENB-133☐ System Control & Digital, Analog Input/Output PC Board Ass'y

Note : ENB-133 ☐ varies according to the areas employed. See note (1) when placing an order.


ENB-133-12
ENB-133-2
ENB-133-3
ENB-133-4
ENB-133-5
ENB-133-6
ENB-133-7
ENB-133-8
ENB-133-9
ENB-133-10
ENB-133-11
ENB-133-13
ENB-133-14
ENB-133-1
EMW10136-002
FLOW
A
B
C
D
E
F

Note (1)

PC Board Ass'y	Designated Areas
ENB-133 A	Continental Europe
ENB-133 B	the U.K.
ENB-133 C	Germany

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q401	2SD1302(S,T)	SILICON MATSUSHITA	
	Q402	2SC535(B,C)	SILICON HITACHI	
	Q403	2SA933S(R,S)	SILICON ROHM	
	Q404	DTA114TS	SILICON ROHM	
	Q405	2SC3068	SILICON SANYO	
	Q406	2SC3068	SILICON SANYO	
	Q407	2SC3068	SILICON SANYO	
	Q408	2SC3068	SILICON SANYO	
	Q409	2SC3068	SILICON SANYO	
	Q410	2SC3068	SILICON SANYO	
	Q600	2SC458(C)	SILICON HITACHI	
	Q601	2SA933(S)	SILICON ROHM	
	Q602	2SC458(C)	SILICON HITACHI	
	Q603	2SA933(S)	SILICON ROHM	
	Q604	DTC114YS	SILICON ROHM	
	Q606	DTC114YS	SILICON ROHM	
	Q900	DTC114TFF	SILICON ROHM	
	Q901	DTC144ES	SILICON ROHM	
	Q902	2SC1740S(R,S)	SILICON ROHM	
	Q930	DTA114TS	SILICON ROHM	
	Q931	DTC144ES	SILICON ROHM	
	Q932	DTC144ES	SILICON ROHM	
	Q933	DTC144ES	SILICON ROHM	
	Q934	DTC144TS	SILICON ROHM	
	Q935	DTC144ES	SILICON ROHM	
	Q938	2SC1685(R,S)	SILICON MATSUSHITA	
	Q939	DTA114YS	SILICON ROHM	
	Q950	2SC1740S(R,S)	SILICON ROHM	
	Q951	2SC1685(R,S)	SILICON MATSUSHITA	
	Q952	DTC144ES	SILICON ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC301	VC4580LD	I.C. DAINICHI	
	IC302	TC9164N	I.C. TOSHIBA	
	IC303	TC9163N	I.C. TOSHIBA	
	IC304	XRA15218N	I.C. EXAR JAPAN	
	IC401	TC9245N	I.C. TOSHIBA	
	IC402	TC5081AP	I.C. TOSHIBA	
	IC403	TC74HC163AP	I.C. TOSHIBA	
	IC404	TC74HC163AP	I.C. TOSHIBA	
	IC405	VC4580L	I.C. DAINICHI	
	IC406	JCE4302A	I.C. MATSUSHITA	
	IC407	TC74HCU04AP	I.C. TOSHIBA	
	IC408	NJM78M05FD	I.C. DAINICHI	
	IC409	VC4580L	I.C. DAINICHI	
	IC410	VC4580L	I.C. DAINICHI	
	IC514	LB1639-CV	I.C. SANYO	
	IC600	LA7952	I.C. SANYO	
	IC809	BA3312N	I.C. ROHM	
	IC900	MN171202JPG	I.C. MATSUSHITA	
	IC901	TC74HC154AP	I.C. TOSHIBA	
	IC902	AN6873N	I.C. MATSUSHITA	
	IC903	AN6873N	I.C. MATSUSHITA	
	IC904	TC74HC595AP	I.C. TOSHIBA	
	IC905	GP1U501X	I.C. SHARP	
	IC930	MN171202JPF	I.C. MATSUSHITA	
	IC950	XR-1091DCP	I.C. EXAR JAPAN	
	IC951	TC9164N	I.C. TOSHIBA	
	IC952	UPD7001C	I.C. NEC	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D029	1SR139-200	SILICON ROHM	
	D401	FC52M(5/6)	VARICAP FUJITSU	
	D404	1SS133	SILICON ROHM	
	D405	1SS133	SILICON ROHM	
	D406	1SS133	SILICON ROHM	
	D407	MA700	ZENER MATSUSHITA	
	D408	MTZ5.1JB	ZENER ROHM	
	D548	1SS133	SILICON ROHM	
	D653	1SS133	SILICON ROHM	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	D654	1SS133	SILICON ROHM	
	D655	1SS133	SILICON ROHM	
	D657	MTZ3.9JB	ZENER ROHM	
	D900	1SS133	SILICON ROHM	
	D901	1SS133	SILICON ROHM	
	D902	1SS133	SILICON ROHM	
	D903	1SS133	SILICON ROHM	
	D904	SLR-34VC3F	L.E.D. ROHM	A
	D904	SLA-580LT3F	L.E.D. ROHM	B
	D904	SLR-34VC3F	L.E.D. ROHM	C
	D905	SLH-34DC3F	L.E.D. ROHM	
	D906	SLH-34DC3F	L.E.D. ROHM	
	D907	SLH-34DC3F	L.E.D. ROHM	
	D908	SLV-31YC3F	L.E.D. ROHM	
	D909	SLV-31YC3F	L.E.D. ROHM	
	D910	SLH-34VC3F	L.E.D. ROHM	
	D911	SLH-34VC3F	L.E.D. ROHM	
	D912	SLH-34VC3F	L.E.D. ROHM	
	D913	SLH-34VC3F	L.E.D. ROHM	
	D914	SLH-34VC3F	L.E.D. ROHM	
	D915	SLH-34VC3F	L.E.D. ROHM	
	D916	SLH-34VC3F	L.E.D. ROHM	
	D917	SLH-34VC3F	L.E.D. ROHM	
	D918	SLH-34VC3F	L.E.D. ROHM	
	D919	SLH-34VC3F	L.E.D. ROHM	
	D920	SLH-34VC3F	L.E.D. ROHM	
	D921	SLH-34DC3F	L.E.D. ROHM	
	D922	SLH-34DC3F	L.E.D. ROHM	
	D923	SLH-34DC3F	L.E.D. ROHM	
	D924	SLH-34DC3F	L.E.D. ROHM	
	D925	SLR-34VC3F	L.E.D. ROHM	
	D926	SLR-34VC3F	L.E.D. ROHM	
	D927	MTZ5.6JC	ZENER ROHM	
	D930	1SS133	SILICON ROHM	
	D933	1SS133	SILICON ROHM	
	D934	MTZ5.1JC	ZENER ROHM	
	D935	1SS133	SILICON ROHM	
	D936	1SS133	SILICON ROHM	
	D937	1SS133	SILICON ROHM	
	D938	1SS133	SILICON ROHM	
	D950	1SS133	SILICON ROHM	
	D951	1SS133	SILICON ROHM	
	D952	MTZ5.1JC	ZENER ROHM	
	D953	MTZ5.1JC	ZENER ROHM	
	D955	MTZ2.7JB	ZENER ROHM	
	D956	MTZ2.7JB	ZENER ROHM	
	D990	LN282RPX	L.E.D. MATSUSHITA	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C301	QETB1HM-475	4.7MF 50V ELECTRO	
	C302	QETB1HM-475	4.7MF 50V ELECTRO	
	C303	QCBB1HK-101	100PF 50V CERAMIC	
	C304	QCBB1HK-101	100PF 50V CERAMIC	
	C305	QFN81HJ-182	1800PF 50V MYLAR	
	C306	QFN81HJ-182	1800PF 50V MYLAR	
	C307	QFN81HJ-682	6800PF 50V MYLAR	
	C308	QFN81HJ-682	6800PF 50V MYLAR	
	C309	QCBB1HK-101	100PF 50V CERAMIC	
	C310	QCBB1HK-101	100PF 50V CERAMIC	
	C311	QCBB1HK-101	100PF 50V CERAMIC	
	C312	QCBB1HK-101	100PF 50V CERAMIC	
	C313	QETB1HM-475	4.7MF 50V ELECTRO	
	C314	QETB1HM-475	4.7MF 50V ELECTRO	
	C315	QETB1EM-476	47MF 25V ELECTRO	
	C316	QETB1EM-476	47MF 25V ELECTRO	
	C317	QETB1EM-476	47MF 25V ELECTRO	
	C318	QETB1EM-476	47MF 25V ELECTRO	
	C319	QETB1EM-476	47MF 25V ELECTRO	
	C320	QETB1EM-476	47MF 25V ELECTRO	
	C323	QCBB1HK-101	100PF 50V CERAMIC	
	C324	QCBB1HK-101	100PF 50V CERAMIC	
	C326	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C329	QCBB1HK-271	270PF 50V CERAMIC	
	C330	QCBB1HK-271	270PF 50V CERAMIC	
	C331	QCBB1HK-331	330PF 50V CERAMIC	
	C332	QCBB1HK-331	330PF 50V CERAMIC	
	C333	QCBB1HK-331	330PF 50V CERAMIC	
	C334	QCBB1HK-331	330PF 50V CERAMIC	
	C335	QCBB1HK-331	330PF 50V CERAMIC	
	C336	QCBB1HK-331	330PF 50V CERAMIC	
	C337	QCBB1HK-271	270PF 50V CERAMIC	
	C338	QCBB1HK-271	270PF 50V CERAMIC	
	C339	QCBB1HK-101	100PF 50V CERAMIC	
	C340	QCBB1HK-101	100PF 50V CERAMIC	
	C341	QCBB1HK-331	330PF 50V CERAMIC	
	C342	QCBB1HK-331	330PF 50V CERAMIC	
	C343	QCBB1HK-271	270PF 50V CERAMIC	
	C344	QCBB1HK-271	270PF 50V CERAMIC	
	C345	QCBB1HK-101	100PF 50V CERAMIC	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C346	QCBB1HK-101	100PF 50V CERAMIC	
	C351	QETB1EM-106	10MF 25V ELECTRO	
	C352	QETB1EM-106	10MF 25V ELECTRO	
	C353	QETB1HM-475	4.7MF 50V ELECTRO	
	C354	QETB1HM-475	4.7MF 50V ELECTRO	
	C355	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C356	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C401	QETB1AM-107	100MF 10V ELECTRO	
	C402	QCZ0205-155	1.5MF 25V CERAMIC	
	C403	QETB1AM-107	100MF 10V ELECTRO	
	C404	QCZ0205-155	1.5MF 25V CERAMIC	
	C405	QCBB1HK-121	120PF 50V CERAMIC	
	C406	QEK51CM-226	22MF 16V ELECTRO	
	C407	QCVB1CM-103	0.01MF 16V CERAMIC	
	C408	QCSB1HJ-220	22PF 50V CERAMIC	
	C410	QCZ0205-155	1.5MF 25V CERAMIC	
	C411	QCBB1HK-221	220PF 50V CERAMIC	
	C412	QFV81HJ-473	0.047MF 50V T.FILM	
	C413	QCT26CH-121	120PF 50V CERAMIC	
	C414	QCZ0205-155	1.5MF 25V CERAMIC	
	C415	QEK51CM-107	100MF 16V ELECTRO	
	C416	QCZ0205-155	1.5MF 25V CERAMIC	
	C419	QETB1AM-107	100MF 10V ELECTRO	
	C420	QETB1EM-476	47MF 25V ELECTRO	
	C421	QETB1EM-106	10MF 25V ELECTRO	
	C422	QETB1EM-106	10MF 25V ELECTRO	
	C423	QETB1EM-106	10MF 25V ELECTRO	
	C424	QCBB1HK-101	100PF 50V CERAMIC	
	C425	QCVB1CM-103	0.01MF 16V CERAMIC	
	C426	QCBB1HK-221	220PF 50V CERAMIC	
	C427	QCGB1HK-102	1000PF 50V CERAMIC	
	C428	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C429	QCS21HJ-150	15PF 50V CERAMIC	
	C430	QCSB1HJ-560	56PF 50V CERAMIC	
	C431	QCSB1HJ-390	39PF 50V CERAMIC	
	C432	QCGB1HK-102	1000PF 50V CERAMIC	
	C433	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C434	QER51CM-476	47MF 16V ELECTRO	
	C435	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C436	QETB1EM-106	10MF 25V ELECTRO	
	C437	QETB1HM-474	0.47MF 50V ELECTRO	
	C438	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C439	QCS21HJ-820	82PF 50V CERAMIC	
	C440	QCZ0205-155	1.5MF 25V CERAMIC	
	C441	QCZ0205-155	1.5MF 25V CERAMIC	
	C442	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C443	QETB0JM-477	470MF 6.3V ELECTRO	
	C444	QCZ0205-155	1.5MF 25V CERAMIC	
	C445	QFV81HJ-473	0.047MF 50V T.FILM	
	C446	QETB0JM-477	470MF 6.3V ELECTRO	
	C448	QCZ0205-155	1.5MF 25V CERAMIC	
	C449	QETB0JM-477	470MF 6.3V ELECTRO	
	C451	QFLB1HJ-271	270PF 50V MYLAR	
	C452	QFLB1HJ-271	270PF 50V MYLAR	
	C453	QFLB1HJ-271	270PF 50V MYLAR	
	C454	QFLB1HJ-271	270PF 50V MYLAR	
	C455	QCS21HJ-820	82PF 50V CERAMIC	
	C456	QCS21HJ-820	82PF 50V CERAMIC	
	C457	QCS21HJ-820	82PF 50V CERAMIC	
	C458	QCS21HJ-820	82PF 50V CERAMIC	
	C459	QFV81HJ-473	0.047MF 50V T.FILM	
	C460	QFV81HJ-473	0.047MF 50V T.FILM	
	C461	QFN81HJ-392	3900PF 50V MYLAR	
	C462	QFN81HJ-392	3900PF 50V MYLAR	
	C463	QCS21HJ-331	330PF 50V CERAMIC	
	C464	QCS21HJ-331	330PF 50V CERAMIC	
	C465	QETB1EM-226	22MF 25V ELECTRO	
	C466	QETB1EM-226	22MF 25V ELECTRO	
	C467	QFN81HJ-392	3900PF 50V MYLAR	
	C468	QFN81HJ-392	3900PF 50V MYLAR	
	C471	QFV81HJ-473	0.047MF 50V T.FILM	
	C472	QFV81HJ-473	0.047MF 50V T.FILM	
	C473	QFV81HJ-473	0.047MF 50V T.FILM	
	C474	QFV81HJ-473	0.047MF 50V T.FILM	
	C475	QCVB1CM-103	0.01MF 16V CERAMIC	
	C476	QCVB1CM-103	0.01MF 16V CERAMIC	
	C480	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C481	QETB1EM-227	220MF 25V ELECTRO	
	C482	QETB0JM-477	470MF 6.3V ELECTRO	
	C483	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C484	QETB1EM-107	100MF 25V ELECTRO	
	C485	QETB1EM-107	100MF 25V ELECTRO	
	C490	QCZ0205-155	1.5MF 25V CERAMIC	
	C523	QCVB1CM-103	0.01MF 16V CERAMIC	
	C566	QETB1EM-476	47MF 25V ELECTRO	
	C600	QETB1AM-476	47MF 10V ELECTRO	
	C601	QETB1AM-476	47MF 10V ELECTRO	
	C602	QETB1AM-476	47MF 10V ELECTRO	
	C603	QEN51CM-476	47MF 16V NON POLE	
	C604	QCSB1HJ-680	68PF 50V CERAMIC	
	C605	QETB1AM-108	1000MF 10V ELECTRO	
	C606	QEN51CM-476	47MF 16V NON POLE	
	C607	QCSB1HJ-680	68PF 50V CERAMIC	
	C608	QETB1AM-108	1000MF 10V ELECTRO	
	C609	QETB1CM-108	1000MF 16V ELECTRO	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	C840	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C841	QEK51CM-106G	10MF 16V ELECTRO	
	C842	QEK51CM-106G	10MF 16V ELECTRO	
	C847	QEK51CM-107	100MF 16V ELECTRO	
	C848	QEK51CM-106G	10MF 16V ELECTRO	
	C849	QEK51CM-107	100MF 16V ELECTRO	
	C851	QCSB1HJ-470	47PF 50V CERAMIC	
	C852	QCSB1HJ-470	47PF 50V CERAMIC	
	C853	QEK51HM-225G	2.2MF 50V ELECTRO	
	C854	QEK51HM-225G	2.2MF 50V ELECTRO	
	C857	QCXB1CM-332	3300PF 16V CERAMIC	
	C858	QCXB1CM-332	3300PF 16V CERAMIC	
	C859	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C900	QER51HM-105G	1MF 50V ELECTRO	
	C901	QCZ0205-155	1.5MF 25V CERAMIC	
	C902	QER50JM-107	100MF 6.3V ELECTRO	
	C904	QETB1HM-226	22MF 50V ELECTRO	
	C931	QCVB1CM-103	0.01MF 16V CERAMIC	
	C932	QETB1HM-105	1MF 50V ELECTRO	
	C933	QCVB1CM-103	0.01MF 16V CERAMIC	
	C934	QCBB1HK-471	470PF 50V CERAMIC	
	C935	QETB0JM-108	1000MF 6.3V ELECTRO	
	C936	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C938	QCVB1CM-103	0.01MF 16V CERAMIC	
	C939	QCZ0205-155	1.5MF 25V CERAMIC	
	C950	QETB1HM-474	0.47MF 50V ELECTRO	
	C951	QETB1CM-476	47MF 16V ELECTRO	
	C952	QFV81HJ-104	0.1MF 50V T.FILM	
	C953	QCGB1HK-102	1000PF 50V CERAMIC	
	C954	QETB1HM-474	0.47MF 50V ELECTRO	
	C955	QCVB1CM-103	0.01MF 16V CERAMIC	
	C956	QETB1AM-107	100MF 10V ELECTRO	
	C957	QETB1AM-107	100MF 10V ELECTRO	
	C958	QETB1CM-107	100MF 16V ELECTRO	
	C959	QCVB1CM-103	0.01MF 16V CERAMIC	
	C960	QETB1CM-476	47MF 16V ELECTRO	
	C961	QCVB1CM-103	0.01MF 16V CERAMIC	
	C962	QCS21HJ-561	560PF 50V CERAMIC	
	C963	QCS21HJ-470	47PF 50V CERAMIC	
	C964	QETB1EM-106	10MF 25V ELECTRO	
	C965	QETB1HM-105	1MF 50V ELECTRO	
	C967	QCBB1HK-561	560PF 50V CERAMIC	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R301	QRD167J-222	2.2K 1/6W CARBON	
	R302	QRD167J-222	2.2K 1/6W CARBON	
	R303	QRD167J-473	47K 1/6W CARBON	
	R304	QRD167J-473	47K 1/6W CARBON	
	R305	QRD167J-102	1K 1/6W CARBON	
	R306	QRD167J-102	1K 1/6W CARBON	
	R307	QRD167J-393	39K 1/6W CARBON	
	R308	QRD167J-393	39K 1/6W CARBON	
	R309	QRD167J-474	470K 1/6W CARBON	
	R310	QRD167J-474	470K 1/6W CARBON	
	R311	QRD167J-104	100K 1/6W CARBON	
	R312	QRD167J-104	100K 1/6W CARBON	
	R313	QRD167J-153	15K 1/6W CARBON	
	R314	QRD167J-153	15K 1/6W CARBON	
	R315	QRD167J-104	100K 1/6W CARBON	
	R316	QRD167J-104	100K 1/6W CARBON	
	R317	QRD167J-153	15K 1/6W CARBON	
	R318	QRD167J-153	15K 1/6W CARBON	
	R319	QRD167J-104	100K 1/6W CARBON	
	R320	QRD167J-104	100K 1/6W CARBON	
	R321	QRD167J-153	15K 1/6W CARBON	
	R322	QRD167J-153	15K 1/6W CARBON	
	R323	QRD167J-104	100K 1/6W CARBON	
	R324	QRD167J-104	100K 1/6W CARBON	
	R325	QRD167J-471	470 1/6W CARBON	
	R326	QRD167J-471	470 1/6W CARBON	
	R327	QRD167J-153	15K 1/6W CARBON	
	R328	QRD167J-153	15K 1/6W CARBON	
	R329	QRD167J-104	100K 1/6W CARBON	
	R330	QRD167J-104	100K 1/6W CARBON	
	R331	QRD167J-471	470 1/6W CARBON	
	R332	QRD167J-471	470 1/6W CARBON	
	R333	QRD167J-104	100K 1/6W CARBON	
	R334	QRD167J-104	100K 1/6W CARBON	
	R335	QRD167J-104	100K 1/6W CARBON	
	R336	QRD167J-104	100K 1/6W CARBON	
	R341	QRD167J-681	680 1/6W CARBON	
	R342	QRD167J-681	680 1/6W CARBON	
⚠	R343	QRZ0077-680	68 1/4W FUSIBLE	
⚠	R344	QRZ0077-680	68 1/4W FUSIBLE	
	R347	QRD167J-102	1K 1/6W CARBON	
	R348	QRD167J-102	1K 1/6W CARBON	
	R351	QRD167J-101	100 1/6W CARBON	
	R352	QRD167J-101	100 1/6W CARBON	
	R353	QRD167J-102	1K 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R354	QRD167J-102	1K 1/6W CARBON	
	R361	QRD167J-122	1.2K 1/6W CARBON	
	R362	QRD167J-122	1.2K 1/6W CARBON	
	R401	QRD167J-820	82 1/6W CARBON	
	R402	QRD167J-221	220 1/6W CARBON	
	R403	QRD167J-472	4.7K 1/6W CARBON	
	R404	QRD167J-183	18K 1/6W CARBON	
	R405	QRD167J-100	10 1/6W CARBON	
	R407	QRD167J-820	82 1/6W CARBON	
	R408	QRD167J-301	300 1/6W CARBON	
	R409	QRD167J-203	20K 1/6W CARBON	
	R410	QRD167J-751	750 1/6W CARBON	
	R411	QRD167J-751	750 1/6W CARBON	
	R412	QRD167J-751	750 1/6W CARBON	
	R413	QRD167J-104	100K 1/6W CARBON	
	R414	QRD167J-122	1.2K 1/6W CARBON	
	R415	QRD167J-181	180 1/6W CARBON	
	R416	QRD167J-181	180 1/6W CARBON	
	R417	QRD167J-181	180 1/6W CARBON	
	R418	QRD167J-332	3.3K 1/6W CARBON	
	R419	QRD167J-103	10K 1/6W CARBON	
	R420	QRD167J-222	2.2K 1/6W CARBON	
	R421	QRD167J-103	10K 1/6W CARBON	
	R422	QRD167J-103	10K 1/6W CARBON	
	R423	QRD167J-103	10K 1/6W CARBON	
	R424	QRD167J-105	1M 1/6W CARBON	
	R425	QRD167J-101	100 1/6W CARBON	
	R426	QRD167J-470	47 1/6W CARBON	
	R427	QRD167J-102	1K 1/6W CARBON	
	R429	QRD167J-223	22K 1/6W CARBON	
	R430	QRD167J-103	10K 1/6W CARBON	
	R431	QRD167J-103	10K 1/6W CARBON	
	R433	QRD167J-103	10K 1/6W CARBON	
	R434	QRD167J-561	560 1/6W CARBON	
	R435	QRD167J-102	1K 1/6W CARBON	
	R436	QRD167J-101	100 1/6W CARBON	
	R437	QRD167J-103	10K 1/6W CARBON	
	R438	QRD167J-102	1K 1/6W CARBON	
⚠	R440	QRZ0077-4R7	4.7 1/4W FUSIBLE	
⚠	R441	QRZ0077-4R7	4.7 1/4W FUSIBLE	
⚠	R442	QRZ0077-4R7	4.7 1/4W FUSIBLE	
⚠	R443	QRZ0077-4R7	4.7 1/4W FUSIBLE	
⚠	R444	QRZ0077-4R7	4.7 1/4W FUSIBLE	
	R445	QRD167J-101	100 1/6W CARBON	
	R446	QRD167J-101	100 1/6W CARBON	
	R447	QRD167J-101	100 1/6W CARBON	
	R448	QRD167J-101	100 1/6W CARBON	
	R450	QRD167J-151	150 1/6W CARBON	
⚠	R451	QRV144F-1802	18K 1/4W M.FILM	
⚠	R452	QRV144F-1802	18K 1/4W M.FILM	
⚠	R453	QRV144F-1802	18K 1/4W M.FILM	
⚠	R454	QRV144F-1802	18K 1/4W M.FILM	
⚠	R455	QRV144F-1802	18K 1/4W M.FILM	
⚠	R456	QRV144F-1802	18K 1/4W M.FILM	
⚠	R457	QRV144F-1802	18K 1/4W M.FILM	
⚠	R458	QRV144F-1802	18K 1/4W M.FILM	
⚠	R459	QRV144F-2702	27K 1/4W M.FILM	
⚠	R460	QRV144F-2702	27K 1/4W M.FILM	
⚠	R461	QRV144F-2702	27K 1/4W M.FILM	
⚠	R462	QRV144F-2702	27K 1/4W M.FILM	
⚠	R463	QRV144F-3902A	39K 1/4W M.FILM	
⚠	R464	QRV144F-3902A	39K 1/4W M.FILM	
⚠	R465	QRV144F-3902A	39K 1/4W M.FILM	
⚠	R466	QRV144F-3902A	39K 1/4W M.FILM	
	R467	QRD167J-102	1K 1/6W CARBON	
	R468	QRD167J-102	1K 1/6W CARBON	
	R469	QRD167J-331	330 1/6W CARBON	
	R470	QRD167J-331	330 1/6W CARBON	
	R471	QRD167J-474	470K 1/6W CARBON	
	R472	QRD167J-474	470K 1/6W CARBON	
	R473	QRD167J-302	3K 1/6W CARBON	
	R474	QRD167J-302	3K 1/6W CARBON	
	R475	QRD167J-512	5.1K 1/6W CARBON	
	R476	QRD167J-512	5.1K 1/6W CARBON	
	R477	QRD167J-182	1.8K 1/6W CARBON	
	R478	QRD167J-182	1.8K 1/6W CARBON	
	R479	QRD167J-101	100 1/6W CARBON	
	R480	QRD167J-101	100 1/6W CARBON	
	R481	QRD167J-392	3.9K 1/6W CARBON	
	R482	QRD167J-392	3.9K 1/6W CARBON	
	R483	QRD167J-821	820 1/6W CARBON	
	R484	QRD167J-821	820 1/6W CARBON	
	R485	QRD167J-561	560 1/6W CARBON	
	R486	QRD167J-561	560 1/6W CARBON	
	R487	QRD167J-331	330 1/6W CARBON	
	R488	QRD167J-331	330 1/6W CARBON	
	R489	QRD167J-103	10K 1/6W CARBON	
	R490	QRD167J-103	10K 1/6W CARBON	
	R491	QRD167J-103	10K 1/6W CARBON	
	R492	QRD167J-103	10K 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R493	QRD167J-104	100K 1/6W CARBON	
	R494	QRD167J-104	100K 1/6W CARBON	
	R496	QRD167J-105	1M 1/6W CARBON	
	R497	QRD167J-105	1M 1/6W CARBON	
	R600	QRD167J-750	75 1/6W CARBON	
	R601	QRD167J-100	10 1/6W CARBON	
	R602	QRD167J-750	75 1/6W CARBON	
	R603	QRD167J-100	10 1/6W CARBON	
	R604	QRD167J-750	75 1/6W CARBON	
	R605	QRD167J-100	10 1/6W CARBON	
	R606	QRD167J-222	2.2K 1/6W CARBON	
	R607	QRD167J-682	6.8K 1/6W CARBON	
	R608	QRD167J-113	11K 1/6W CARBON	
	R609	QRD167J-121	120 1/6W CARBON	
	R610	QRD167J-431	430 1/6W CARBON	
	R611	QRD167J-121	120 1/6W CARBON	
	R612	QRD167J-750	75 1/6W CARBON	
	R613	QRD167J-473	47K 1/6W CARBON	
	R614	QRD167J-750	75 1/6W CARBON	
	R615	QRD167J-473	47K 1/6W CARBON	
	R616	QRD167J-682	6.8K 1/6W CARBON	
	R621	QRD167J-222	2.2K 1/6W CARBON	
⚠	R625	QRD14CJ-100S	10 1/4W UNF.CARBON	
	R629	QRD167J-113	11K 1/6W CARBON	
	R638	QRD167J-431	430 1/6W CARBON	
	R639	QRD167J-121	120 1/6W CARBON	
	R642	QRD167J-121	120 1/6W CARBON	
	R652	QRD167J-222	2.2K 1/6W CARBON	
	R653	QRD167J-222	2.2K 1/6W CARBON	
	R680	QRD167J-471	470 1/6W CARBON	
	R681	QRD167J-471	470 1/6W CARBON	
	R703	QRD167J-102	1K 1/6W CARBON	
	R875	QRD167J-470	47 1/6W CARBON	
	R876	QRD167J-470	47 1/6W CARBON	
	R879	QRD167J-302	3K 1/6W CARBON	
	R880	QRD167J-302	3K 1/6W CARBON	
	R881	QRD167J-122	1.2K 1/6W CARBON	
	R882	QRD167J-391	390 1/6W CARBON	
	R885	QRD167J-162	1.6K 1/6W CARBON	
	R886	QRD167J-162	1.6K 1/6W CARBON	
	R887	QRD167J-513	51K 1/6W CARBON	
	R888	QRD167J-474	470K 1/6W CARBON	
	R900	QRD167J-104	100K 1/6W CARBON	
	R901	QRD167J-103	10K 1/6W CARBON	
	R902	QRD167J-103	10K 1/6W CARBON	
	R903	QRD167J-103	10K 1/6W CARBON	
	R904	QRD167J-103	10K 1/6W CARBON	
	R905	QRD167J-471	470 1/6W CARBON	
	R906	QRD167J-331	330 1/6W CARBON	
	R907	QRD167J-471	470 1/6W CARBON	
	R908	QRD167J-331	330 1/6W CARBON	
	R909	QRD167J-102	1K 1/6W CARBON	
	R910	QRD167J-471	470 1/6W CARBON	
	R911	QRD167J-471	470 1/6W CARBON	
	R912	QRD167J-103	10K 1/6W CARBON	
	R913	QRD167J-390	39 1/6W CARBON	
	R914	QRD167J-103	10K 1/6W CARBON	
	R915	QRD167J-103	10K 1/6W CARBON	
	R916	QRD167J-473	47K 1/6W CARBON	
	R917	QRD167J-102	1K 1/6W CARBON	
	R930	QRD167J-222	2.2K 1/6W CARBON	
	R931	QRD167J-472	4.7K 1/6W CARBON	
	R932	QRD167J-332	3.3K 1/6W CARBON	
	R933	QRD167J-103	10K 1/6W CARBON	
	R935	QRD167J-103	10K 1/6W CARBON	
	R936	QRD167J-103	10K 1/6W CARBON	
	R939	QRD167J-221	220 1/6W CARBON	
	R940	QRD167J-101	100 1/6W CARBON	
	R941	QRD167J-562	5.6K 1/6W CARBON	
	R943	QRD167J-103	10K 1/6W CARBON	
	R944	QRD167J-103	10K 1/6W CARBON	
	R945	QRD167J-103	10K 1/6W CARBON	
	R947	QRD167J-223	22K 1/6W CARBON	
	R948	QRD167J-473	47K 1/6W CARBON	
	R949	QRD167J-104	100K 1/6W CARBON	
	R950	QRD167J-224	220K 1/6W CARBON	
	R951	QRD167J-562	5.6K 1/6W CARBON	
	R952	QRD167J-103	10K 1/6W CARBON	
	R953	QRD167J-473	47K 1/6W CARBON	
	R954	QRD167J-104	100K 1/6W CARBON	
	R955	QRD167J-152	1.5K 1/6W CARBON	
	R956	QRD167J-102	1K 1/6W CARBON	
	R958	QRD167J-102	1K 1/6W CARBON	
	R959	QRD167J-102	1K 1/6W CARBON	
	R960	QRD167J-102	1K 1/6W CARBON	
	R962	QRD167J-273	27K 1/6W CARBON	
	R963	QRD167J-223	22K 1/6W CARBON	
	R964	QRD167J-222	2.2K 1/6W CARBON	
	R965	QRD167J-222	2.2K 1/6W CARBON	
	R966	QRD167J-222	2.2K 1/6W CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	R967	QRD167J-103	10K 1/6W CARBON	
	R968	QRD167J-153	15K 1/6W CARBON	
	R969	QRD167J-105	1M 1/6W CARBON	
	R970	QRD167J-273	27K 1/6W CARBON	
	R973	QRD167J-102	1K 1/6W CARBON	
	R976	QRD167J-241	240 1/6W CARBON	
	RA930	QRB069J-103	10K 1/10W R.NETWORK	
	VR701	QVDC91Z-E01B	VARIABLE	
	VR801	QVJB81B-E54B	50K VARIABLE	
	VR802	QVGA81W-E15B	100K VARIABLE	
	VR803	QVGB81B-E14B	10K VARIABLE	
	VR804	QVGA81W-E15B	100K VARIABLE	

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10136-002	CIRCUIT BOARD	
		E307184-001	FL DISPLAY TUBE HOLDER	
		E307247-001	L.E.D.HOLDER	
		E33754-001	TIE BAND	
		E3400-431	SPACER	
	J301	EMN00TV-209A	2P PIN JACK(PHONO,VIDEO1)	
	J302	EMN00TV-608A	6P PIN JACK(VIDEO2/VDP,TV)	
	J303	EMN00TV-608A	6P PIN JACK	
	J401	EMN00YV-212A	2P PIN JACK(DAT IN/OUT)	
	J402	TORX174	I.C(OPTICAL JACK)(CD)	
	J403	TORX174	I.C(OPTICAL JACK)(VDP)	
	J601	EMN00YV-211A	2P PIN JACK(VIDEO1,VIDEO2/VDP)	
	J602	EMN00YV-311A	3P PIN JACK(VCR PLAY,VCR REC,MONITOR)	
	J703	EMV7122-103	CONNECTOR(3PIN)	
	J804	QMS6R10-E71H	HEADPHONE JACK	
	J851	QMS6R10-E31H	HEADPHONE JACK(MIC)	
	K401	ENZ8101-007	INDUCTOR	
	K900	ENZ8101-007	INDUCTOR	
	K901	ENZ8101-007	INDUCTOR	
	K902	ENZ8101-007	INDUCTOR	
	K903	ENZ8101-007	INDUCTOR	
	L401	EQL4004-560	INDUCTOR	
	L402	EQL4004-560	INDUCTOR	
	L404	EQL4008-1R2	INDUCTOR	
	L405	EQL4004-1R0	INDUCTOR	
	L406	EQL4004-560	INDUCTOR	
	L515	EQL4004-221	INDUCTOR	
	L516	EQL4004-221	INDUCTOR	
	P704	EMV5109-006A	PLUG ASSY(6PIN)	
	P900	EMV5103-002A	PLUG ASSY(2PIN)	
	P905	EMV5109-009A	PLUG ASSY(9PIN)	
	P907	EMV5109-003A	PLUG ASSY(3PIN)	
	P908	EMV5109-003A	PLUG ASSY(3PIN)	
	S900	ESP0001-018	TACT SWITCH(POWER)	
	S901	ESP0001-018	TACT SWITCH(TAPE)	
	S902	ESP0001-018	TACT SWITCH(PHONO)	
	S903	ESP0001-018	TACT SWITCH(TUNER)	
	S904	ESP0001-018	TACT SWITCH(DIGITAL)	
	S905	ESP0001-018	TACT SWITCH(CD)	
	S906	ESP0001-018	TACT SWITCH(DAT)	
	S907	ESP0001-018	TACT SWITCH(TV)	
	S908	ESP0001-018	TACT SWITCH(VIDEO1)	
	S909	ESP0001-018	TACT SWITCH(VIDEO2/VDP)	
	S910	ESP0001-018	TACT SWITCH(VCR)	
	S911	ESP0001-018	TACT SWITCH(D.DIRECT)	
	S912	ESP0001-018	TACT SWITCH(DISPLAY)	
	S913	ESP0001-018	TACT SWITCH(DEMO)	
	S914	ESP0001-018	TACT SWITCH(LEARNING CSRP)	
	S915	ESP0001-018	TACT SWITCH(MODE)	
	S916	ESP0001-018	TACT SWITCH(DAP ON/OFF)	
	S917	ESP0001-018	TACT SWITCH(PRESET)	
	S918	ESP0001-018	TACT SWITCH(SEA ON/OFF)	
	S919	ESP0001-018	TACT SWITCH(DAP -)	
	S920	ESP0001-018	TACT SWITCH(DAP +)	
	S921	ESP0001-018	TACT SWITCH(FREQ. SELECT)	
	S922	ESP0001-018	TACT SWITCH(MEMORY)	
	S923	ESP0001-018	TACT SWITCH(f ◀)	
	S924	ESP0001-018	TACT SWITCH(f ▶)	
	S925	ESP0001-018	TACT SWITCH(LEVER -)	
	S926	ESP0001-018	TACT SWITCH(LEVER +)	
	BC700	EWS990-010	SOCKET WIRE(8PIN)	
	BC701	EWS990-009	SOCKET WIRE(8PIN)	
	BC704	EWS990-010	SOCKET WIRE(6PIN)	
	BC801	EWS990-008	SOCKET WIRE(8PIN)	
	BC900	EMV5103-002B	PLUG ASSY(2PIN)	
	BC905	EWS259-A007	SOCKET WIRE(9PIN)	
	BC907	EWS293-0126	SOCKET WIRE(3PIN)	
	FL900	ELU0001-125	FL TUBE	
	FS900	E3400-445	FELT SPACER	
	FS901	E3400-445	FELT SPACER	
	FW301	EWR33B-16SST	FLAT WIRE(3PIN)	
	FW302	EWR33B-13SST	FLAT WIRE(3PIN)	
	FW303	EWR33B-13SST	FLAT WIRE(3PIN)	
	FW703	EWR33B-13LST	FLAT WIRE(3PIN)	
	FW802	EWR35B-40LST	FLAT WIRE(5PIN)	

⚠ : SAFETY PARTS

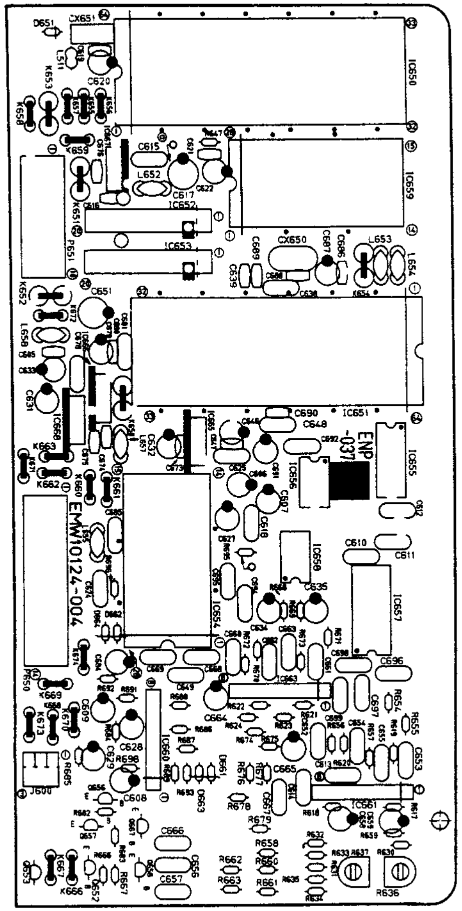
Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	FW803	EWR34B-20LST	FLAT WIRE(4PIN)	
	FW804	EWR33B-08SST	FLAT WIRE(3PIN)	
	FW805	EWR23C-40LN	FLAT WIRE(3PIN)	
	FW900	EWR37B-08SST	FLAT WIRE(7PIN)	
	FW901	EWR37B-08SST	FLAT WIRE(7PIN)	
	FW902	EWR34B-10SST	FLAT WIRE(4PIN)	
	FW903	EWR35B-08SST	FLAT WIRE(4PIN)	
	FW904	EWR37B-08SST	FLAT WIRE(7PIN)	
	FW908	EWR36B-16SST	FLAT WIRE(6PIN)	
	FW930	EWR36B-10SST	FLAT WIRE(6PIN)	
	JA301	EMV7125-009R	CONNECTOR(9PIN)	
	JA302	EMV7125-011R	CONNECTOR(11PIN)	
	JA401	EMV7125-009R	CONNECTOR(9PIN)	
	JA509	EMV7125-005R	CONNECTOR(5PIN)	
	JA900	EMV7123-040	CONNECTOR(40PIN)	
	WT001	EWT031-026	TERMINAL WIRE	
	XT900	ECX0060-000EM	RESONATOR	
	XT930	ECX0060-000EM	RESONATOR	

⚠ : SAFETY PARTS

■ENP-037☐ DSP PC Board Ass'y

Note : ENP-037☐ varies according to the areas employed.
See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENP-037 D	Continental Europe the U.K.
ENP-037 E	Germany

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	Q652	2SD2144S(VW)	SILICON	ROHM	
	Q653	2SD2144S(VW)	SILICON	ROHM	
	Q656	2SD2144S(VW)	SILICON	ROHM	
	Q657	2SD2144S(VW)	SILICON	ROHM	
	Q658	DTA114YS	SILICON	ROHM	
	Q667	DTA144ES	SILICON	ROHM	

⚠ : SAFETY PARTS

I.C.s

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	IC650	MN17581JNR	I.C.	MATSUSHITA	
	IC651	LC83010N	I.C.	SANYO	
	IC652	MB81464-12PSZ	I.C.	FUJITSU	
	IC653	MB81464-12PSZ	I.C.	FUJITSU	
	IC654	CS5339-KP	I.C.	ASAHI KASEI	
	IC655	SM5818AS1	I.C.	KANEMATSU	
	IC656	SM5807FS	I.C.	KANEMATSU	
	IC657	PCM1700U	I.C.	NIHONBARBURAUN	
	IC658	UPD6376GS	I.C.	NEC	
	IC659	LH535949	I.C.	SHARP	
	IC660	BA15218N	I.C.	ROHM	
	IC661	VC4580L	I.C.	DAINICHI	
	IC663	VC4580L	I.C.	DAINICHI	
	IC665	NJM79M05FA	I.C.	DAINICHI	
	IC666	NJM78M05FD	I.C.	DAINICHI	
	IC667	NJM78M05FD	I.C.	DAINICHI	
	IC668	NJM78M05FD	I.C.	DAINICHI	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
	D651	1SS133	SILICON	ROHM	
	D661	MTZ4.7JB	ZENER	ROHM	
	D662	MTZ4.7JB	ZENER	ROHM	
	D663	MTZ4.7JB	ZENER	ROHM	
	D664	MTZ4.7JB	ZENER	ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C605	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C606	QETB1EM-476	47MF	25V	ELECTRO	
	C607	QETB1EM-476	47MF	25V	ELECTRO	
	C608	QETB1HM-475	4.7MF	50V	ELECTRO	
	C609	QETB1HM-475	4.7MF	50V	ELECTRO	
	C610	QFV81HJ-104	0.1MF	50V	T.FILM	
	C611	QFV81HJ-104	0.1MF	50V	T.FILM	
	C612	QFV81HJ-104	0.1MF	50V	T.FILM	
	C613	QFV81HJ-104	0.1MF	50V	T.FILM	
	C614	QFV81HJ-104	0.1MF	50V	T.FILM	
	C615	QFV81HJ-104	0.1MF	50V	T.FILM	
	C616	QCGB1HK-102	1000PF	50V	CERAMIC	
	C617	QETB1AM-227	220MF	10V	ELECTRO	
	C618	QFV81HJ-104	0.1MF	50V	T.FILM	
	C619	QCGB1HK-102	1000PF	50V	CERAMIC	
	C620	QETB1AM-107	100MF	10V	ELECTRO	
	C621	QCGB1HK-102	1000PF	50V	CERAMIC	
	C622	QETB1AM-107	100MF	10V	ELECTRO	
	C624	QCZ0205-155	1.5MF	25V	CERAMIC	
	C625	QFV81HJ-104	0.1MF	50V	T.FILM	
	C627	QETB1EM-106	10MF	25V	ELECTRO	
	C628	QETB1EM-106	10MF	25V	ELECTRO	
	C629	QETB1EM-106	10MF	25V	ELECTRO	
	C631	EEZ5009-474	0.47MF		ELECTRO	
	C632	EEZ5009-474	0.47MF		ELECTRO	
	C633	QEHB1AM-107	100MF	10V	ELECTRO	
	C634	QETB1EM-106	10MF	25V	ELECTRO	
	C635	QETB1EM-106	10MF	25V	ELECTRO	
	C638	QFV81HJ-104	0.1MF	50V	T.FILM	
	C639	QCS81HJ-680	68PF	50V	CERAMIC	
	C646	QETB1AM-107	100MF	10V	ELECTRO	
	C647	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C648	QFV81HJ-104	0.1MF	50V	T.FILM	
	C649	QCZ0205-155	1.5MF	25V	CERAMIC	
	C651	EETB1CM-107E	100MF	16V	ELECTRO	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C652	QFN81HJ-103	0.01MF	50V	MYLAR	
	C653	QFN81HJ-103	0.01MF	50V	MYLAR	
	C654	QFN81HJ-222	2200PF	50V	MYLAR	
	C655	QFN81HJ-222	2200PF	50V	MYLAR	
	C656	QFN81HJ-223	0.022MF	50V	MYLAR	
	C657	QFN81HJ-223	0.022MF	50V	MYLAR	
	C658	QETB1HM-226	22MF	50V	ELECTRO	
	C659	QETB1HM-226	22MF	50V	ELECTRO	
	C660	QFN81HJ-103	0.01MF	50V	MYLAR	
	C661	QFN81HJ-103	0.01MF	50V	MYLAR	
	C662	QFN81HJ-222	2200PF	50V	MYLAR	
	C663	QFN81HJ-222	2200PF	50V	MYLAR	
	C664	QETB1EM-226	22MF	25V	ELECTRO	
	C665	QETB1EM-226	22MF	25V	ELECTRO	
	C666	QFN81HJ-223	0.022MF	50V	MYLAR	
	C667	QFN81HJ-223	0.022MF	50V	MYLAR	
	C668	QFN81HJ-103	0.01MF	50V	MYLAR	
	C669	QFN81HJ-103	0.01MF	50V	MYLAR	
	C673	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C674	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C675	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C676	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C678	QFV81HJ-104	0.1MF	50V	T.FILM	
	C679	QEHB1AM-107	100MF	10V	ELECTRO	
	C680	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C681	QFV81HJ-104	0.1MF	50V	T.FILM	
	C684	QETB1EM-106	10MF	25V	ELECTRO	
	C685	QCZ0205-155	1.5MF	25V	CERAMIC	
	C686	QCGB1HK-102	1000PF	50V	CERAMIC	
	C687	QETB1AM-107	100MF	10V	ELECTRO	
	C688	QCT30CH-180	18PF	50V	CERAMIC	
	C689	QCT30CH-180	18PF	50V	CERAMIC	
	C690	QCGB1HK-102	1000PF	50V	CERAMIC	
	C691	QETB1AM-107	100MF	10V	ELECTRO	
	C692	QCZ0205-155	1.5MF	25V	CERAMIC	
	C694	QCZ0205-155	1.5MF	25V	CERAMIC	
	C695	QCZ0205-155	1.5MF	25V	CERAMIC	
	C696	QFV81HJ-104	0.1MF	50V	T.FILM	
	C697	QFV81HJ-104	0.1MF	50V	T.FILM	
	C698	QFV81HJ-104	0.1MF	50V	T.FILM	
	C699	QFV81HJ-104	0.1MF	50V	T.FILM	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R617	QRD167J-621	620	1/6W	CARBON	
	R618	QRD167J-621	620	1/6W	CARBON	
	R619	QRD167J-821	820	1/6W	CARBON	
	R620	QRD167J-821	820	1/6W	CARBON	
	R621	QRD167J-183	18K	1/6W	CARBON	
	R622	QRD167J-183	18K	1/6W	CARBON	
	R623	QRD167J-821	820	1/6W	CARBON	
	R624	QRD167J-821	820	1/6W	CARBON	
	R630	QRD167J-184	180K	1/6W	CARBON	
	R631	QRD167J-184	180K	1/6W	CARBON	
	R632	QRD167J-102	1K	1/6W	CARBON	
	R633	QRD167J-102	1K	1/6W	CARBON	
	R634	QRD167J-102	1K	1/6W	CARBON	
	R635	QRD167J-102	1K	1/6W	CARBON	
	R636	QVPA601-104A	100K		VARIABLE	
	R637	QVPA601-104A	100K		VARIABLE	
	R647	QRD167J-103	10K	1/6W	CARBON	
	R654	QRD167J-821	820	1/6W	CARBON	
	R655	QRD167J-821	820	1/6W	CARBON	
	R656	QRD167J-821	820	1/6W	CARBON	
	R657	QRD167J-821	820	1/6W	CARBON	
	R658	QRD167J-273	27K	1/6W	CARBON	
	R659	QRD167J-273	27K	1/6W	CARBON	
	R660	QRD167J-271	270	1/6W	CARBON	
	R661	QRD167J-271	270	1/6W	CARBON	
	R662	QRD167J-271	270	1/6W	CARBON	
	R663	QRD167J-271	270	1/6W	CARBON	
	R666	QRD167J-103	10K	1/6W	CARBON	
	R667	QRD167J-103	10K	1/6W	CARBON	
	R668	QRD167J-104	100K	1/6W	CARBON	
	R669	QRD167J-104	100K	1/6W	CARBON	
	R670	QRD167J-821	820	1/6W	CARBON	
	R671	QRD167J-821	820	1/6W	CARBON	
	R672	QRD167J-821	820	1/6W	CARBON	
	R673	QRD167J-821	820	1/6W	CARBON	
	R674	QRD167J-273	27K	1/6W	CARBON	
	R675	QRD167J-273	27K	1/6W	CARBON	
	R676	QRD167J-391	390	1/6W	CARBON	
	R677	QRD167J-391	390	1/6W	CARBON	
	R678	QRD167J-181	180	1/6W	CARBON	
	R679	QRD167J-181	180	1/6W	CARBON	
	R682	QRD167J-103	10K	1/6W	CARBON	
	R683	QRD167J-103	10K	1/6W	CARBON	
	R684	QRD167J-221	220	1/6W	CARBON	
	R685	QRD167J-221	220	1/6W	CARBON	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R686	QRD167J-473	47K	1/6W	CARBON	
	R687	QRD167J-473	47K	1/6W	CARBON	
	R688	QRD167J-473	47K	1/6W	CARBON	
	R689	QRD167J-473	47K	1/6W	CARBON	
	R690	QRD167J-273	27K	1/6W	CARBON	
	R691	QRD167J-273	27K	1/6W	CARBON	
	R692	QRD167J-221	220	1/6W	CARBON	
	R693	QRD167J-221	220	1/6W	CARBON	
	R695	QRD167J-103	10K	1/6W	CARBON	
	R696	QRD167J-100	10	1/6W	CARBON	

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10124-004(S)	CIRCUIT BOARD	
	K650	ENZ8101-007	INDUCTOR	
	K651	ENZ8101-007	INDUCTOR	
	K652	ENZ8101-007	INDUCTOR	
	K653	ENZ8101-007	INDUCTOR	
	K654	ENZ8101-007	INDUCTOR	
	K655	ENZ8101-016	INDUCTOR	
	K656	ENZ8101-016	INDUCTOR	
	K657	ENZ8101-016	INDUCTOR	
	K658	ENZ8101-016	INDUCTOR	
	K659	ENZ8101-016	INDUCTOR	
	K660	ENZ8101-016	INDUCTOR	
	K661	ENZ8101-016	INDUCTOR	
	K662	ENZ8101-016	INDUCTOR	
	K663	ENZ8101-016	INDUCTOR	
	K666	ENZ8101-016	INDUCTOR	
	K667	ENZ8101-016	INDUCTOR	
	K668	ENZ8101-016	INDUCTOR	
	K669	ENZ8101-016	INDUCTOR	
	K670	ENZ8101-016	INDUCTOR	
	K671	ENZ8101-016	INDUCTOR	
	K672	ENZ8101-016	INDUCTOR	
	K673	ENZ8101-016	INDUCTOR	
	K674	ENZ8101-016	INDUCTOR	
	L511	EQL4004-R22	INDUCTOR	
	L652	EQF0601-222	CERAMIC FILTER	
	L653	EQF0601-222	CERAMIC FILTER	
	L654	EQF0601-222	CERAMIC FILTER	
	L655	EQF0601-222	CERAMIC FILTER	
	L657	EQF0601-222	CERAMIC FILTER	
	L658	EQF0601-222	CERAMIC FILTER	
	P650	EMV7125-014R	CONNECTOR(14PIN)	
	P651	EMV7125-010R	CONNECTOR(10PIN)	
	CX650	ECX0180-000EF	RESONATOR	
	CX651	ECX0072-000EM	RESONATOR	

⚠ : SAFETY PARTS

— MEMO —

JVC

SERVICE MANUAL

DX-E97TN

(Unit No. AX-E97TN)

- * The AX-E97TN is nearly equal unit with the previous model AX-E95TN .
- * This manual shows the different parts between the AX-E97TN and the AX-E95TN .
- * For the instruction book and the packing materials , refer to the DX-E97TN (SM.No. 20346) and the DX-E95TN (SM.No.20277) .
- * Use the AX-E95TN service manual (No.20279) with this one when servicing .

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■ Parts List

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-AXE97TNE (S)	Front Panel Ass'y	1		
	1-1	E206935-004	Front Panel	1		
	1-2	E102366-005	Front Base	1		
	1-3	E307181-003	Ornament	1		
	1-4	E307193-004	Window Screen	1		
	1-11	Not used	—	—		
	2	E406312-003	Knob	2	BALANCE	
	3	E306313-002	Knob	2	MIC	
	5	E307183-003	Volume Knob	1		
	14	E206941-004	Push Button	1	SOURCE	
	15	E206937-003	Push Button	1	POWER	
	16	E206939-003	Push Button	1	DAP	
	28	E206945-007	Metal Cover	1		
	63	E206943-007	Rear Panel	1		Except BS
		E206943-008	Rear Panel	1		BS
	—	E70027-001	Approval Label	1		EN
	—	QZL1031-101	SEV Label	1		EF
	—	E407091-060	FTZ Label	1		G

The Marks for Designated Areas

⚠ Safety Parts

EN	Scandinavia	G	Germany
EF	Continental Europe	BS	the U.K.

No mark indicates all areas.